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ROUND ABOUT.

A Woman's Poultry Plant—Two Natick Poultry Plants.



ABOUT THREE or four months ago a gentleman who with his father, a western Massachusetts farmer who has recently begun to make a specialty of poultry, had been visiting a number of poultry farms easily reached from Boston, told me that quite the most interesting place they had seen was the newly built plant of Mrs. F. C. Nowell at South Natick. What he said further in talking of it seemed to me to indicate that it was a plant in which many readers of this paper would be interested. So I made a memorandum to visit it as soon as possible.

The opportunity came on a warm bright morning toward the end of April, and I made an early start in order to have the early after-

noon for calling on E. D. Pulsifer & Son, and F. P. Pulsifer & Co., of Natick, and then get home in time to look after some hens due to hatch that day.

that considering the generally poor laying the two past winters, and the unpropitious season for chicks in 1901, a new man who could report good egg yields for both years really had less to complain of than many longer in the business have had in the last year.

The Nowell farm is the next but one to Mr. Goodwin's. With the exception of one house the poultry buildings here have all been built since I last visited South Natick, not quite two years ago. I remember noticing that building as I passed the place at that time. The buildings since added change the appearance of that locality very much, the sight being rather more conspicuous than the sites of the poultry buildings on other farms in the vicinity.

I found Mrs. Nowell at home, and on introducing myself was made cordially welcome. A few questions as to the genesis of the poultry plant, elicited the following information:—

When they first came to this farm four years ago, some eggs were purchased, and from these they raised about fifty pullets, which with the few males kept for breeding, constituted the poultry stock from which the start was made. They were not novices in poultry growing, for Mrs. Nowell living for many years on a Maine farm, had kept chickens profitably, using ordinary farm methods, sometimes growing as many as a thousand in a season. After leaving Maine they lived for some years in Rhode Island, but kept no poultry while there.

The flock of half a hundred hens laid well, and quite a large stock of chickens was raised the next year. The cockerels went to market. There were pullets enough to make the laying stock for the second year number two hundred. A strict account of expenses and receipts for the year had been kept, and in the balancing of accounts it was found that estimating the pullets on hand at market value the season's work had netted over \$290—an average of about \$6 per hen of the original stock.

For the information of several women correspondents who have written me within the past year asking for an opinion as to what they might personally expect in starting a poultry plant, and who will probably be interested in this one, I would add that the family



MRS. F. C. NOWELL'S INCUBATOR CELLAR.

The next season's work with a stock of about two hundred hens was also very satisfactory, though the "per hen" reckoning showed about half as much as for the previous year, the stock being increased to five hundred.

In the meantime the money earned on poultry was used in building additional poultry houses, a small incubator cellar, and a brooder house, there being now on the place three long houses for laying and breeding stock with a total capacity of about five hundred hens. Practically the plant has been built in four years on the money earned with poultry in that time. Whoever uses what is said of this plant in making estimates of what he or she might do in starting a poultry plant should, however, keep in mind that circumstances were such all that was earned with poultry could go to extending the plant. The living comes from Mr. Nowell's business. Mrs. Nowell manages the poultry and does most of the work herself, Mr. N. doing only the morning feeding, and she doing all other work except cleaning and heavy work done by the man employed as general help on the farm.

For the information of several women correspondents who have written me within the past year asking for an opinion as to what they might personally expect in starting a poultry plant, and who will probably be interested in this one, I would add that the family

consists only of Mr. and Mrs. Nowell, and thus she has been able to give closer attention to the poultry than would otherwise have been possible.

I shall not attempt a full description of the plant. The accompanying illustrations will convey a fair general idea of it. It has some good features, and some which to my way of thinking are not so good, most noteworthy of the latter kind being the small yards. As there is land in abundance large yards are possible, and it is always desirable to give liberal yard room.

The reader will notice that in the two long poultry houses seen in the general view of the plant and also in the view of one end of a house—this being a house not seen in the general view—one window in each pen is wide open. I understood Mrs. Nowell to say that when about to build the first house they considered the open front (curtained) scratching shed plan, but finally decided to use a closed front with large windows which could be opened wide at will. This plan in use pleased them so well that it was used in the houses subsequently built.

The two houses seen in the general view differ scarcely at all in design from scores that have been described in this paper, long houses with shed roofs pitched to the north, and with a walk along the north wall in the rear of the pens. They are cheap houses, built of a single



VIEW OF MRS. F. C. NOWELL'S POULTRY PLANT, SO. NATICK, MASS.

This view shows all the buildings but one, the house last built. Several sections of that house are shown on the next page.

Arrived at South Natick I went first to Cleft Rock Poultry Farm, just to make the acquaintance of Mr. A. F. Hunter's successor there, Mr. George W. Goodwin, whom I had not happened to meet on the several occasions when he had been in the office. In appearance the farm is not changed since it changed hands, but I found that Mr. Goodwin is working on somewhat different lines from those which had been followed there, and is giving much attention to building up a family trade in eggs and poultry in the neighboring town of Wellesley, and with most satisfactory results. He also keeps a number of cows, and sells milk, finding milk, eggs, and poultry go well together. Mr. Goodwin tells me he had had little experience with poultry before coming here; and that he has found it easier to make hens lay than to hatch and rear chickens,—the results of his work in those lines not being so much to his satisfaction. It seemed to me



MRS. F. C. NOWELL'S BROODER HOUSE.



MRS. F. C. NOWELL'S NEW LAYING HOUSE.

thickness of matched boards lined inside with cheap building paper, only the roofs being covered with paper outside. Being so constructed they are, of course, cold houses as compared with houses built with two thicknesses of boards and heavy paper coverings on linings. Mrs. Nowell says that in building the first house as they did they felt some uneasiness as to results in winter, for expert poultrymen's houses in the vicinity and similarly located were built with sides either of stone or double boards, and expert opinion declared that the house they proposed to build would be too cold for winter laying. Yet remembering results with cold houses in the colder climate of Maine, they decided to take the risks. Results were such that the two later built houses were of the same construction.

The last one of the three, built last year, has the roof pitched to the south, the primary object of this being to save cost in the house by bringing the highest part of the roof over the walk in the rear of the pens. This house, after one winter's use, they think they like best of all. At first the dampness would collect on the north wall and part of the roof, but after three two inch augur holes were bored just over the door at each end of the walk there was no further trouble of this kind. With one window door in each pen open, and the door at one end of the walk open, it was found that the house did not at any time become overheated during the warm hours of the day.

A point connected with the building of the first house, which especially interested me, was that my last winter's experiment with a new house built late in the season on damp ground had been anticipated here, and with like results. When they got ready to build this house it was quite late in the fall, and a neighboring poultryman supposed to be an

authority advised most emphatically against building then. Said to sell the pullets and build early next year. Mrs. N. intimated that as he wanted to buy the pullets his advice had not the weight it might otherwise have had. This suspicion was natural, yet perhaps unjust to him, for the advice he gave as to building was what would have been given by nine experienced poultrymen out of ten.

The question of the possibility of keeping fowls profitably in a damp location has been more thoroughly tested here than in my house, for mine is on top of a hill, on ground that has only what moisture comes in the rainfall, while these houses are on the hillside where the water oozes out behind them and in some of the yards as well. It would ooze out in the last house built but for the trench back of it to carry the water off. The ground under this house must be quite wet within a few inches of the surface, though dry enough on top. The simple secret of keeping the fowls healthy under such conditions seems to be in thorough and constant ventilation through doors and windows.

Having "done" the poultry plant I had to see the Jerseys, six cows and three heifers, and the horses, and Mrs. Nowell having asked my further plans for the day kindly invited me to lunch, and offered to drive me to Natick to see the plants of E. D. Pulsifer & Son, and F. P. Pulsifer & Co., which I proposed to visit. Needless to say both invitations were accepted.

We called first at E. D. Pulsifer's. He was not at home, but Mrs. Pulsifer was ready to do the honors of the place. Most of the breeding stock here is kept in the high basement of a large barn, with a fair sized yard outside for each pen. Beyond these are the yards for young chicks. Two hens with broods were running about, the chicks with these being all that had to that time been hatched, though

an incubator was due to hatch in a few days. Here as so many times elsewhere I found the disposition to which allusion was recently made on the editorial page of this paper to wait for settled spring weather to get chicks out. Most of the chicks are kept in brooders, indoor brooders being used in little houses like that shown on this page. When the chicks are old enough to be weaned from the brooder the brooder is removed from the house, and they remain in it until winter, roosts being put in for them at the proper stage.

The upper story of the barn is fitted up for surplus stock, but was now almost empty, three cockerels having the place to themselves and representing with a few Brahmas out in the yards the total of the stock for sale, everything else intended for sale having been disposed of.

We found Mr. F. P. Pulsifer at home and with his partner, Mr. Tillinghast, still at work on the large poultry house commenced early in the winter. This was completed to a stage where the fowls could be put into it month ago, but the yards were still unfinished, and there were numerous touches to be applied here and there. The incompleteness of the yards favored me in securing a photograph of the building.

This house has a two story feed, cook, and storage section, from which run two wings, only the longer of which is shown in the illustration. The wing not shown connects the new house with the old buildings. It is seventy-five feet in length and will be used as a surplus stock and conditioning house. The principal wing is two hundred and twenty

The nest may not work as well in practice as it should in theory; (none of them seem to quite do that) but it looks like a very good thing.

The house has a board floor, the site being such that to get the pens in so long a house all on the same level it was necessary to either make a board floor, or do a great deal of filling in. Though, if I am not in error, Mr. Pulsifer expressed a preference for a board floor at all times. The hens in this house, though put into it in midwinter, are reported to have laid well, and fertility is reported remarkably good, running about 85% on an average.

This is a poultry house which would greatly interest many poultrymen about to build. It would be well worth while for anyone about to build a large house, and undecided as to the plan, to see this house. I don't say this because I like it personally, that is, would build so for my own use—but because from what I learn of what others like and want, I know that a great many poultrymen would like this plan very much. The house is substantial, neat, and conveniently and attractively arranged. It is such a house as a man who wants everything that way would take pleasure in having and in showing. It is, in short, such a house as one who knew of the various appliances for poultrymen which Mr. Pulsifer has devised, would expect Mr. Pulsifer to build. It is a building in which details are complete, worked out as far as possible, and for those who want a building finished to the last detail, it is a fine model of a poultry house. Those who are satisfied (as I am) with a poultry house that simply shel-



F. P. PULSIFER & CO.'S NEW POULTRY HOUSE AT NATICK, MASS.

feet long. In design it combines features of several popular plans. Each section—considering a section as appropriated to one lot of fowls—consists of a scratching room and roosting room, but the fowls from two sections except the end sections, roost in the same roosting room, divided in the middle with wire netting, while between this double roosting apartment and the scratching rooms on either side are close partitions. Each scratching room has one large window swinging on hinges, and kept open during the day except in extremely rough weather. The windows in the roosting rooms are smaller, set high up, and hinged at the bottom.

Quite the most interesting features in this house were the trap nests and the arrangement of troughs for the mash. These are shown in the illustration. The nests are placed on a shelf, and as each is a movable box, it was necessary to have another shelf like cover over them. So the feed trough was placed up here instead of at the floor, an arrangement having some very obvious advantages. The trap nest arrangement is an extremely simple one. Had I not run short of plates I should have tried to get some photos, which would show it better. With the light as it was and with no more plates to use I could not get a picture that would show its details and workings. I don't know whether the nest is either patented or patentable, but it is the simplest I have seen, and fits into the arrangement of the house to perfection. In the picture taken the nests are all used as common nests, the hinged front being elevated and held fast by a little wooden button on the side of the nest. When used as a trap nest a hook just below this button holds the front just low enough so that the hen passing under it releases the hook, and as she passes through, the door closes after her,

ters the fowls, with 2 x 3 scantling for roosts, old boxes for nests, anything at all that will answer the purpose for a feed trough, and a wooden pail outdoors for water, would only have a curious interest in its details.

Quite a number of chicks were out, the oldest appearing to be some seven or eight weeks old, and a chubby, hearty crowd of youngsters. They were in a detached brooder house to which a brooder was attached outside. I intended to photograph the arrangement, but ran out of plates before I got to it.

The incubator cellar was interesting beyond the ordinary cellar, principally because of the number of different machines in it. Several of them being machines one has not heard of in many years, and there were one or two unnamed machines, presumably the handiwork of some inventor who never arrived at the manufacturing stage. One of these, said to have done some excellent hatching, and a brooder of the same unknown origin, were acquired in a trade for some Belgians about the time the boom in hares collapsed. Few of these machines, however, were in use, machines of popular modern makes being preferred for regular service.

One arrangement in the outside cellar that many might appreciate was the connection of the oil barrel by pipe with a receptacle above, so that the barrel could be conveniently filled from a barrel or tank outside without lifting and handling.

Advertising is not so much a matter of springing upon the reader unawares, startling him with a so-called novel ad, as of consulting his habits and stepping in with a sane, quiet bit of argument when he has leisure to consider it.—*Printers' Ink.*



COOP USED FOR SHELTER FOR INDIVIDUAL BROODERS.
At Plant of E. D. Pulsifer & Son, Natick, Mass.

Colony Poultry Farming in England.



UNDER THE title, "A Paying Poultry Farm," Mr. W. M. Elkington gives readers of *Poultry*, (Eng.), a short account of an English farm where the method of poultry keeping approaches that in vogue in the "colony" poultry farming section of Rhode Island. While not wholly agreeing with some of Mr. Elkington's comments on conditions of profit in poultry farming, I find that his article indicates tendencies in poultry keeping in England very like some strong tendencies now making results in this country. His article is quoted in full:—

"The majority of poultry keepers, or, at any rate, those who have made the subject a life study, have satisfied themselves that poultry farming can only be made profitable when carried on in connection with general farming. The old theory of keeping hundreds of hens on an acre or two of ground is exploded. Many of us have tried it for ourselves, and found it wanting. We have sunk a lot of good money, got together a lot of fowls, and waited for the profits that did not come. We worked hard enough for them, and we find it somewhat hard to define just why success did not come; but I think the truth is that the possibility never existed, and that the domestic hen was never intended for profitable purposes under such conditions; but a more real and lasting type of poultry farming has sprung up. I have personally tested the possibilities of it, and in a series of articles which I wrote for *Poultry* two or three years ago, I expressed the opinion, as many others have done, that the possibilities of poultry farming lay in the hands of the farmer with plenty of land; and it is in that direction all the best efforts are tending nowadays.

"There are many practical poultry keeping farmers up and down the country; but I was lucky in finding one of the most typical and successful examples quite close to my own door. Mr. Hampden W. Goodacre farms 250 acres of the best grass land in Warwickshire, some seven or eight miles from Rugby. From a boy he has always been more or less interested in fowls; but while farming was good he considered them beneath his notice, and, like many another, either kept them fitfully, or neglected them altogether. Then came the hard times that have ruined agriculture, and he recognized that even the meanest creatures must be made to pay their way, and set to work with a will to make a profit out of his predilection for poultry. Several times I have heard from other persons of his success. Long before I made his acquaintance, Mr. George Palmer told me he considered him one of the best chicken raisers in the country, and when I received an invitation to look round the farm I was glad of the opportunity of such a capital object lesson—one which I knew would prove equally interesting to the readers of *Poultry*.

"Mr. Goodacre's farm lies a mile or two from the nearest village, and in that part of the country well nigh as flat as Lincolnshire. It is neither particularly exposed nor particularly sheltered; but I can quite understand that when the elements are boisterous they make things unpleasant, and fowls which do well there in winter can be expected to do well anywhere. The worst enemies have been foxes. Being in the midst of the Warwickshire hunt country, Mr. Goodacre comes in for frequent attention on the part of both the vermin and their fanatical hunters. He has discovered by experience that no matter how well poultry may pay under satisfactory conditions, it is unprofitable to feed them to foxes at the miserable price hunts can nowadays afford to pay, and in order to protect himself in a measure, he has erected a wire run round each of the houses in the field. This is not to confine the birds altogether, but so that they cannot get out of the houses early in the morning when foxes are usually about; while at a later and safer hour a trap door is lifted and the birds are allowed on the fields. Where the lighter breeds are housed the wire run is covered with strong netting, so that there is no possibility of flying out, and while the birds are in these enclosures they are perfectly safe from four footed marauders. The plan,

I was assured, answers admirably; still it does not altogether do away with the possibility of loss, since foxes recently make raids during the daytime.

"All the houses are in the middle of the field, without any shelter whatever. They are large and commodious, but owing to the fences are never moved. A strand of wire netting keeps beasts and horses from rubbing against the posts of the wire fence; and at each house there is a barrel containing food, and a large trough of water, though many of the birds appear to drink from the two streams that water the farm. Maize is the staple food in spring and summer. When the birds are liberated at six o'clock they have a very limited supply, and again in the evening. The rest of their food they find about the fields, and always come home with a full crop. Mr. Goodacre finds that he can keep his birds in the best condition and get the most satisfactory results by feeding on maize, since he never makes the mistake of overfeeding, and the birds have abundant exercise. In winter the early morning feed is given warm, and consists of granulated meal and barley meal, with which Mr. Goodacre can always bring his birds on to lay in a few days when he wants eggs. The warm food is given only when the weather is really cold; then the effect is much greater than when the diet is continued regularly.

"At the time of my visit I saw the birds just as they are every day of the year, and I was

der are cleared off every week and sent to Leamington or Rugby markets. Several pure breeds are kept, and for winter use the Orpingtons, and especially the Blacks, are considered well ahead of the rest. Altogether I saw about three hundred and fifty birds on the farm, and there was not one that could be called poor.

"It is very evident that Mr. Goodacre has made poultry keeping a decidedly profitable adjunct on the farm, and what he has done many more farmers similarly situated might accomplish. He is his own poultryman. Twice a day he visits the birds, and at this season he is busy from morn till night among the chickens, for he rears hundreds every year, and does them well. I was delighted with what I saw; and without a doubt an unlimited run on a farm works wonders among poultry."

The fact that this English farmer uses the colony system successfully under circumstances which do not give him all the benefits of it which he would have were the foxes in his vicinity given the scant consideration which is their due, instead of being accorded a measure of legal protection, should suggest to American farmers who have been considering the colony plan, but hesitate to adopt it because of possible losses from foxes and other vermin, that it might pay them to use the system with some precautions against marauders. I think there is no kind of wild vermin destructive of poultry which poultrymen are not at liberty to war upon as vigorously as they will.

I am pleased to note that this progressive English poultry farmer uses "maize," and I



INTERIOR OF REAR OF A PEN IN F. P. PULSIFER & CO.'S NEW HOUSE. Showing Nest Arrangement, with Feeding Trough Above the Nests.

delighted with their looks and condition. In many cases there was considerable evidence of fancy points; but although Mr. Goodacre has exhibited a few times with success at Rugby and other local shows, he does not make a specialty of this branch, but puts all his energy into producing the very best pure bred layers of a standard type, as he finds eggs from this class the most salable kind. The majority of the eggs are sold for sitting, and the remain-

der to see the time when the unreasonable prejudice against its use as a poultry food will have disappeared both there and here. There is far too much of it in the eastern United States. It is a prejudice which the poultry keeper's self-interest ought to help him to put away. In ordinary years corn is our cheapest poultry feed, and it makes better eggs than any other grain. Every poultryman should feed corn, and learn to feed it right.

The Size of the Air Cell.



DOES ANYONE tell how the egg evaporates by the size of the air cell? I have used incubators for eight years, but was never able to get the slightest idea of how the egg was evaporating by the air cell. I laid this to my stupidity or to the fact that I used very dark shelled Brahma eggs. However, since I have been advertising my method of ascertaining exactly how much the egg does evaporate I find that other people are bothered this way a great deal more than I ever was.

The first instance known to me of a man who met with complete failure on this account was what led me to devise and use my method. I had shipped some eggs to a man who was using one of the standard incubators. He returned a good share of the eggs to me, complaining that they did not hatch well, and that what chicks he did get, were poor and weak.

He should have known that poor and weak chicks are caused by the incubator, not by the eggs. He only got half the number that I was hatching from the same eggs.

I noticed that the eggs he sent back were decidedly light in weight. The thought then came into my mind that if I could tell by the weight in my hand that they were evaporated too much, could I not with delicate scales, by weighing eggs under hens, tell exactly how much to have them evaporate in my incubator. This idea remained in my mind for nearly a year before I attempted to put it in practice, but when I did try it I was very much pleased with it. I had written the man explaining his difficulty to him, but he replied that he had followed the incubator manufacturer's instructions and his incubator was of the best made.

Another case was of a man who was using three or four different kinds of incubators, and not having much success with any of them. He wrote to me, sending an order, and saying

What are Humors?

They are vitiated or morbid fluids coursing the veins and affecting the tissues. They are commonly due to defective digestion but are sometimes inherited.

How do they manifest themselves?

In many forms of cutaneous eruption, salt rheum or eczema, pimples and boils, and in weakness, languor, general debility.

How are they expelled? By

Hood's Sarsaparilla

which also builds up the system that has suffered from them.

It is the best medicine for all humors.



WILSON'S
New Green Bone, Shell and Vegetable Cutter for the Poultryman.

Also Bone Mills for making phosphate and fertilizer at small cost for the farmer, from 1 to 40 horse power. Farm Feed Mills grind fine, fast and easy. Send for circulars. **WILSON BROS., Sole Mfrs., Easton, Pa.**

Black Minorcas

High class Single Comb Black Minorcas, farm raised 12 years for prolific layers of the largest white eggs. Cockerels \$2 to \$3. Eggs \$2 per 15; \$10 per 100. Stamp for catalogue.

Mrs. GEO. E. MONROE,
Box A, Dryden, N. Y.

Winners at Boston, Pan American, New York.



In a Victor Incubator always yields a vigorous chick. Simplest, most reliable, cheapest, first-class hatcher is the **VICTOR INCUBATOR**. Thousands in use; we pay freight, catalogue 6 cents. **GEO. ERTTEL CO., Quincy, Ill.**

SPRING GROVE FARM.

S. C. WHITE LEGHORN, }
BLACK PLY. ROCKS, } Specialties.
SCOTCH COLLIES, }

Eggs from vigorous farm raised stock. Choice selected utility fowls. Rock, Leghorn and Pekin eggs \$1.50 a sitting. Geese eggs 25c. each. See exchange notice in Feb. issue.

W. HAHMAN, Box 3, Altoona, Pa.



\$100 for 50 cts

That's what you get when you buy our new book entitled, "Little Chicks." Everybody needs one. Circular free.

EXCELSIOR WIRE AND POULTRY SUPPLY CO.,
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W. V. RUSS, Prop.

"The proof of the pudding is in the eating."

COBURN'S BARRED ROCK EGGS

Hatch Winners.

TRY THEM.

Eggs from eight very choice pens \$3 per sitting; 2 sittings \$5. From three good pens \$2 per sitting; 2 sittings \$3.50. From other pens of thoroughbred birds, but not so fancy \$1 per sitting; 3 sittings \$2.25. List of matings for 1902 is free, and it tells all about our yards and stock.

F. A. P. COBURN,
B-759 Stevens St., Lowell, Mass.

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Makes the Eggs Come; the hens simply can't help themselves. Quadruple strength. Small teaspoonful in mash to thirty hens in winter, or forty in summer. Used daily, costs but 12c. per hen per year. Price 25c.; by mail 31c.

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Is so good that we will let you guarantee it in your own language. Only Roup and Canker cure which precipitates all impurities from the water. Administered in drinking water—no trouble. Never known to fail; in fact cannot fail. "Costs most, yet is cheapest." Price 50c., postpaid.

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YOUR FORTUNE sold by the STARS, with photo of person. PROF. ASTOR, 111, 305, 311, 313, 315, 317, 319, 321, 323, 325, 327, 329, 331, 333, 335, 337, 339, 341, 343, 345, 347, 349, 351, 353, 355, 357, 359, 361, 363, 365, 367, 369, 371, 373, 375, 377, 379, 381, 383, 385, 387, 389, 391, 393, 395, 397, 399, 401, 403, 405, 407, 409, 411, 413, 415, 417, 419, 421, 423, 425, 427, 429, 431, 433, 435, 437, 439, 441, 443, 445, 447, 449, 451, 453, 455, 457, 459, 461, 463, 465, 467, 469, 471, 473, 475, 477, 479, 481, 483, 485, 487, 489, 491, 493, 495, 497, 499, 501, 503, 505, 507, 509, 511, 513, 515, 517, 519, 521, 523, 525, 527, 529, 531, 533, 535, 537, 539, 541, 543, 545, 547, 549, 551, 553, 555, 557, 559, 561, 563, 565, 567, 569, 571, 573, 575, 577, 579, 581, 583, 585, 587, 589, 591, 593, 595, 597, 599, 601, 603, 605, 607, 609, 611, 613, 615, 617, 619, 621, 623, 625, 627, 629, 631, 633, 635, 637, 639, 641, 643, 645, 647, 649, 651, 653, 655, 657, 659, 661, 663, 665, 667, 669, 671, 673, 675, 677, 679, 681, 683, 685, 687, 689, 691, 693, 695, 697, 699, 701, 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that he had used the machines with the ventilators wide open, but could not get the eggs to evaporate enough. I saw what his trouble was immediately, as in my experience I have never found an incubator that needed to have the ventilators anywhere near wide open in order to evaporate the eggs enough. So little could this man tell by the air space that he was spoiling eggs without number, evaporating them too much when he thought he was not drying them down enough.

Here is what the poultry manager at the Utah experiment station, whom I consider one of the most intelligent and progressive in the country, says as to his experience:—"It appears to me however, that the air space is not a reliable guide in incubation. Heretofore in watching the air space and comparing it with the charts issued by makers of incubators, the trouble seemed to be to get the air space large enough, or the egg dried down enough. In weighing eggs in machine and

under hens, the trouble seemed to be the reverse—the machine eggs were dried down too much."

Then if we examine the charts of the different writers on incubator instructions we will find that they do not agree at all. Mr. Rankin in his book on artificial poultry raising, says that after the sixteenth day the air cell grows smaller, and at the end of the nineteenth day is about the size it was on the tenth. No other cuts or directions agree with his on this point, yet I have always considered Mr. Rankin a very close observer.

It would seem as though to tell a man without any experience that he can tell how the egg evaporates by the size of the air cell, is the most dangerous thing an incubator manufacturer can do. The inexperienced man had much better follow the instructions, and thus he will probably come near enough to hatching his chickens until the incubator gets old,

or the door warps, or it cracks open in other ways.

J. W. GOODALE.

[Mr. Goodale presents one view of a very interesting subject. On the other side of it there are the people, successful users of incubators who use the air cell as a guide in ventilation. This seems to establish it as a fact that some can use the size of the air cell as a guide in running their incubators, and some cannot. Manifestly then the method which suits one of these classes is not appropriate for the other. We will try and have one or two contributions on the subject from incubator operators who have made close observations on the points involved, and besides these will be pleased to consider voluntary contributions from others whose special qualifications to write on it may not be known to us, and also from those whose experiences in this connection have culminated in ideas or results that would be of general interest.—ED.]



DR. E. M. SANTEE'S NEW POULTRY HOUSE AT CORTLAND, N. Y.

A Good Poultry House.



NOT LONG ago a subscriber wrote me enclosing a newspaper clipping describing a poultry house used last winter by Dr. E. M. Santee, of Cortland, N. Y. My correspondent said he intended building a hen house this season, liked the plan of Dr. Santee's house, and thought if in my judgment the plan contained no objectionable features he would use it.

A reading of the description of the house impressed me so favorably that I commended the plan to the correspondent, and wrote Dr. Santee, asking if he could not let me have a photograph of the house to use in F-P., with his description given to the newspaper, or with any other matter relating to the house he might give us. In due season came the photograph from which the illustration of the house on this page was made, and a copy of the published article with some slight alterations and corrections. This article was in the form of a letter to the *Syracuse* (N. Y.) *Herald*. We preface it with the short news article in the same paper which called out the full explanation.

"Cortland, March 27.—Dr. E. M. Santee, secretary of the New York Poultry Society, has invented a hen house which he believes will greatly reduce the cost, and revolutionize the poultry breeding business.

"The novel feature of the house which the doctor has had constructed on his poultry farm, and where he claims to have demonstrated its superiorities over the old style, is that it has no glass windows, but that heat and light are supplied through openings provided with muslin curtains, and also curtains dividing different compartments. There are also muslin curtains which are let down in front of

the perches at night to keep the fowls warm while they are not exercising. The outside walls are made of a single thickness of matched pine boards, while the floor is covered one foot deep with coal ashes.

"During the winter its advantages have been apparent by tests which have been frequently taken. On one occasion when the thermometer registered in the open air five degrees below zero, the temperature of the inside of the hen house was forty degrees above zero.

"Hens kept in this house have averaged 100 per cent more eggs than the same varieties have which were kept in an old style house built with double walls lined with building paper with air space between, and provided with double floors and glass windows.

"The cost of building the new house, which is eight and one-half feet wide by thirty feet long, was only \$13.

"The doctor, who claims to have exploded by his new ideas all the timeworn theories of hen culture, is a lecturer on poultry diseases, sanitation, and poultry buildings, before the poultry institutes held in this state, and believes that the time will come when his theory will be adopted by large poultry breeders, and that ultimately glass windows in structures for this purpose will be entirely abandoned."

"Cortland, April 8.—The following letter from Dr. Santee has been received:—

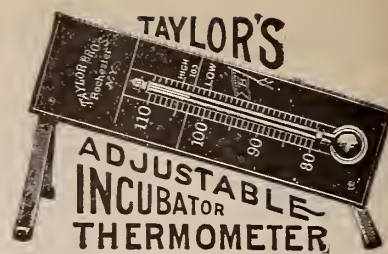
A. J. White, manager Cortland branch office *Syracuse Herald*:

"Dear Sir:—As you noted recently, your publication of a description of one of my poultry houses has caused me no end of work in replying to inquiries from people from every conceivable direction, and I now enclose a bill of lumber required in constructing this house,

together with directions for building, and ask you to help me out by publishing them, and asking the papers all over the country who printed your article without giving you credit, to also publish the same, as it is simply impossible for me to write a personal answer to all of the letters received.

"Many of my correspondents ask if your article is fact or fancy. Let me say that all that you said about the building is literally true, except that you got the temperatures a little off—they were 3 degrees above outside, 38 above in the new house, and 28 above in the old house, and you might have added that during the late cold snap, while the egg yield in the old house fell off nearly 50 per cent, that of the new house remained as it had been during the nice weather.

"The hens in the new house represent nearly all the different breeds of the old house, and were taken from that house about February 1st. They have had the same food and care. They represent about 11 per cent of all



BY MAIL SAFELY PACKED.
75 CTS. EACH. 3 FOR \$1.50.
TAYLOR BROS. CO.
2 Elizabeth St., Rochester, N. Y.

R. I. REDS.

Our stock is the genuine breed; we are not selling dark disqualified Buff Wyandotte and Plymouth Rock eggs and stock, therefore cannot offer eggs for less than \$2 per 15; \$5 for 45; \$8 per 100. Address

R. I. RED FARMS,
Natick, Mass.

ORNAMENTAL LAWN FENCE



Buy from manufacturers direct and save the Dealer's Profit of 20 to 25 per cent. We make many designs, and sell more Ornamental Fence than any other two firms in the business. Why? Because we use nothing but the best material money can buy, sell direct to the user at FACTORY PRICES and guarantee any one can erect our fence. We make special prices to Churches, Cemeteries and large Parks. Send us your address. We will take pleasure in mailing you our large 32 page catalog on Ornamental Fencing, free. If you are interested in Farm Fencing send for our 42 page Catalogue. Address
COILED SPRING FENCE CO.
Box 469
Winchester, Ind. U. S. A.

BUFFINTON'S BUFFS.

We will sell eggs from No. 1 prize stock of Buff Wyandottes, Buff Leghorns, Buff and Barred Plymouth Rocks; Rose, Pea and Single Comb Rhode Island Reds; \$1.25 for 13; \$3 for 40; \$6 for 100. Partridge Wyandotte and Partridge Plymouth Rock \$2 for 13; \$5 for 40; \$10 for 100. Incubator eggs from utility stock of R. I. Reds, Buff Wyandottes, Buff Leghorns, Buff and Barred P. Rock, \$3.50 for 100; \$6 for 200. Send for circular.

ROWLAND G. BUFFINTON,
Box 677, FALL RIVER, MASS.

Let your chickens and hogs sleep at night on a board, roost, clean floor, or straw bedding, sprinkled or painted with Lee's Lice Killer. Next morning you will find all body-lice lying dead on the painted floor.

Lee's Lice Killer is a liquid lice and mite-killing paint which kills not only all insects that it touches but also forms a gas which penetrates the



feathers of fowls and bristles of hogs, killing all insects on their bodies. It is the easiest to use, least expensive, strongest, safest, and best—sure death to all insects. Sold at all important towns. Send for catalogue of poultry and stock supplies and name of nearest agent. Lee's Lice Killer is never sold in bulk. See that every can bears above trade-mark with our name and address.

GEO. H. LEE CO., Omaha, Neb.

11 Out of 14 POSSIBLE FIRSTS

On males, is the record of our

Barred Plymouth Rocks

At 7 consecutive Boston shows. Twice as many firsts as any competitor on females. \$100 cup for champion female at Boston, 1902. Their record on cockerels at Pan-American, Boston, Philadelphia, and New York, is unparalleled in history.

Our Single Comb Brown Leghorns

have destroyed the ambition of all competitors, winning specials for best display at Philadelphia, New York, and Pan-American; \$100 cup for best display of any Leghorns at New York; \$50 cup for same at Pan-American.

Breeding Birds a Specialty.

Breeding pens of 1 male and 3 females mated for results, \$15; 1 male and 6 females, \$25. These are bargains for 30 days. Cockerels, \$3 to \$10 each.

ECES, \$3 to \$10 per 13; \$10 up per 50.

Send for prize records and circular of matings.

GROVE HILL POULTRY YARDS, Box 401, Waltham, Mass.
WM. ELLERY BRIGHT, Prop. G. W. MANN, Supt.

the hens that I keep, and yet during the month of March they laid 26.5 per cent of all of the eggs laid on the farm.

"I want also to disclaim any credit for originality in the building of this house. It was suggested to me by 'Dad' Davenport, of Dryden, over a year ago, and I could not credit the good things he said about it until I was forced to admit by the experiences of the past hard winter that the so-called warm poultry houses were a delusion, because it is impossible to properly ventilate them and still have them warm; and in sheer desperation I concluded to try a cheap house with a muslin curtain instead of the glass. The result is perfectly satisfactory.

"Some of the questions asked by my correspondents suggest the following: The wind does not blow through the curtain; the divisions between pens are not made of muslin, but of boards; the curtains are made of factory cloth, unbleached; water will freeze solid at night, while the fowls are shut up in the little roosting room back of the curtain, over the droppings boards, but never freezes in the daytime, when the fowls warm the whole room to above the freezing point, even in the most severe weather.

"The house described has no floor, but I would advise a floor of cement or matched boards in a permanent house, and the nearer the ground the better. There is never any frost on the inside walls. The house is always congenial, and never strikes that chill to your very bones that you always get from a poorly ventilated house in cold weather. The secret of the success of this house is its perfect ventilation without draughts, and its being built low so that there is the minimum of room for the fowls to warm.

"The following bill of lumber will build a house 10½x12, 6½ feet high in front, and 3½ feet high at the back, with a single slant roof and a board floor. If more room is desired it may be duplicated: Fifteen 2x4 12 feet scantlings, 150 ft. 12 feet roof boards, 415 feet matched flooring, four pieces 1x3-12 and one 12-inch board, 12 feet long. This does not include nest boxes.

"To build, make a frame out of the scantling, 10½x12, so that when placed on the foundation the scantling will be on edge. Cut two pieces of flooring, 6½ feet long, and two 3½ feet long. The longer ones will represent the height of your building on the south, and the shorter ones its height on the north. Temporarily nail one end of each of these boards at each corner of the base frame; plumb and brace them. Nail a 2x4 to the upper ends of these boards, making the plates for the upper and lower sides of your roof. Fit a rafter at each end of the roof between the plates, and nail in a 2x4 edgewise, from one rafter to the other, midway the roof, for the roof boards to rest upon (they run up and down the roof).

"Now mark off your openings on the front side, 2½ feet wide near one corner, for the door, and 6 feet wide in the center, for the window. Board up the rest of it (boards running up and down) with matched flooring, nail on the roof boards and put on any kind of a roof that you want. Shingles are the best for a tight built house, but this house does not need them for the ventilation; a cheaper roof will do just as well, and I am inclined to think is better. Now fit in five 2x4s for joists for the floor, running the short way of the house; they can rest on the sills, and are quickly put in. Put down the floor; make three trestles of pieces that are 2 feet high and 3 feet long. Make a table of matched stuff that is 3 feet wide and nearly as long as the inside of your building; this is placed on the trestles near the back of the building for droppings board, and the perches arranged over it.

"Now you are ready for the front. Make a door of matched boards for your outside door. Nail a piece of your 12-inch board inside of the bottom of the opening for the window, on top of the floor and nail to the siding. Fit in a 6-inch board across the top of the opening, flush with the siding, and nail to the plate under the upper edge of the roof. Make a frame of the 1x3 strips that is 6 feet 6 inches long, and just wide enough to fit in between the roof plate and the 12-inch board at the bottom of the window. The easy way to make this frame is to mitre it together at the corners and then nail corner boards across it, to brace it.

"Tack on to the smooth side of this frame

ordinary factory cloth, unbleached; hinge it at the top to the roof plate, and button at the bottom; have a hook on the bottom to hook to the roof when it is desired to have the curtain up; fasten wire netting over the outside of your window, and you are ready to furnish your house in any manner that you like. Do not forget the curtain to drop from the roof to the front of the droppings board.

"Be sure to have everything up from the floor so as to save all of the floor space for the hens and you will have room for fifteen Asiatics, twenty of the American classes, or twenty-five Leghorns. E. M. SANTEE."

To the writer this report was of special interest because it was so closely in line with what he had himself been doing recently in

Advertising for Others.



AYS AN exchange:—

"A shrewd poultry advertiser is succeeding in selling to many of his customers a cut which they are using on their stationery setting forth the fact that they breed his strain of fowls. His customers are not so wise in their day and generation. Every such letter sent out is a mighty good argument for buying from the originator of the strain."

That is but a part of one side of the question. I think the case the writer of the above had in mind was that of Mr. A. G. Duston's offer to give—not sell—such a cut to all breeders of his strain of White Wyandottes who applied for it, and I happen to have it as a bit of first hand information that the idea of making this offer came to Mr. Duston because of the large number of persons who were advertising stock as "Duston strain," and either using no cuts at all or using cuts which it was no benefit to them to have possible purchasers see, and which it was not to Mr. Duston's interest to have used in connection with his name.

Why did these breeders,—why do any breeders advertise Duston's, Hawkins', Bradley Bros', Thompson's, Fishers Island, Fishers', Rollins', Felehs', Shaw's, Bright's, Pollard's, Wyckoff's, Blanchard's, and numerous other strains well known by the names of breeders, and many others equally well known by a strain name other than the name of the breeder? Simply because it is to their interest, first and most, to do so. Undoubtedly it benefits the large breeder whose stock is thus advertised. But does not the small and unknown breeder who has bought stock of a well known strain and advertises it as such also receive benefit from the advertising that the man whose name is identified with the strain has done and is doing? Most assuredly he does.

There may come a time when the unknown breeder is in a position to stand entirely alone—when he has made a record and a reputation which put him in a position where he can sell stock better on his own reputation and its merit than on the reputation of another—no matter how good. Every ambitious breeder looks forward to the coming of such a time. Most breeders who have handled a breed of fowls for a number of years have a stock of mingled blood, which if carefully bred is their own strain in the sense in which the word is in common use among poultrymen. The beginner is safest when he keeps to one stock until he has acquired enough experience in breeding it, and enough knowledge of other stocks of the variety to be able to combine them intelligently. And at this early stage of his business he can sell both stock and eggs better by selling it for what it is, advertising it as "So-and-So's strain," than by suppressing the facts as to the origin of his stock; for under the conditions which obtain in the poultry trade unknown stock and novices' mixtures are not in it when sold in competition with stocks of well known lines, even in second hands.

The intimation that advertising another's strain may send the customer to the originator for stock fails to take account of the expectation of many purchasers to buy stock cheaper from the small and unknown breeder than from the originator of the stock. They expect

poultry house construction and experiment. Some time ago I promised to give readers full description of that house, with cost, etc. I will try and fulfill that promise in the next paper. I have some photographs of the building in the not quite finished condition in which it was used during the winter. One of these will be reproduced and also with it a picture of the house completed with the yards and fences as they are to be permanently.

Following this description there will be some observations on matters involved in the use of cold poultry houses,—their advantages, limitations, conditions of use, etc., as brought out in practice with cold and warm houses respectively and by comparisons of results in the two kinds of buildings.

to get it cheaper, and often they do get it cheaper. The fair to good birds thus sold by the breeder selling on the reputation of the stock are almost invariably sold for much less than birds of similar quality would cost if bought of a breeder of long established reputation. In trying to buy such birds, however, the purchaser takes more chances than he does when buying from the expert breeder, for the judgment of the novice may be entirely wrong as to the quality of the stock shipped, and the chances of the purchaser getting what he orders are about two in five, with one chance that he will get better than ordered, and two that he will get worse.

The purchaser, however, rarely understands this, but expects to buy the same stock for less money from the smaller breeder. This is not theory, but personal experience in selling stock and eggs.

Before you send the ad. to the printer just read it over and ask yourself how the man next door, your neighbors and your wife would regard each statement. For they are living, breathing, human beings, representative of the same human beings who are to read your ad. What will appeal to them can be depended upon to appeal to their kind. What will not receive their sanction can never touch humanity in the mass.—*Printers' Ink.*



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CUSHMAN'S REDS

IMPROVED STOCK NOW fifteen \$5; thirty \$8; hundred \$20. Single Comb or Rose Comb variety.

HALF PRICE After June 1st

EGGS NOW TEST STRONGLY FERTILE.

HAVE TWENTY PENS FIRST-CLASS SINGLE COMES, (bred to variety for ten years), TEN FINE ROSE COME YARDS BRED FROM ROSE COMES ONLY FOR SEVERAL YEARS. THREE FLOCKS OF PEA COMES THE BEST OF THIS VARIETY ALL HANDSOME AND UNIFORM IN COLOR. COME AND SEE THEM.

BREEDING TRIOS IN JUNE, yearlings or two year olds \$6. Cockerels \$3.

SAMUEL CUSHMAN & COMPANY

deWOLF FARM, PAPOOSESQUAW, Bristol, R. I.

Here Is Your Chance. We Will Sell Eggs The Rest of the Season

From our best birds at very low prices. Our

White Wyandottes, White Plymouth Rocks

And

Pekin Ducks

Are better than ever before, and if you want to invest in stock that will help your bank account, now is the time.

Hens' Eggs \$2 for 13; \$5 for 39. Incubator Eggs, \$8 per 100—all from good stock.

Duck Eggs, \$3 for 12; \$10 for 100.

We have printed a 50 page book which tells something about raising and keeping poultry. For six cents in stamps we will mail a copy to you.

POLLARD'S POULTRY FARM,

S. Attleboro, Mass.

F. M. POLLARD. GEO. H. POLLARD.

PARK'S REDS

If hatched in

May or June

Will win in strongest competition next fall and winter.

These are the Months to Hatch WINNERS.

Eggs from our prize matings of four females and one male, \$5 per 15. Regular mating, \$2 per 15; \$5 per 45; \$10 per 100.

See our illustrated circular.

P. R. PARK, 195 Lowell St., Methuen, Mass.

207 EGG STRAIN.

Eggs—15, \$2; 45, \$4; 100, \$6.

White Wyandottes, Barred Ply. Rocks.

Stock for sale. Get our prices. They have a show record. Circular free.

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I WILL SELL

Plymouth Rock

Eggs that are now running 90 per cent fertile, for \$1 per sitting; \$4 per hundred. Good winter layers, that lay when eggs are high in price.

GEO. A. GOODWIN

SO. NATICK, MASS.

Successor to A. F. HUNTER.

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ROUP, GAGES AND ALL POULTRY DISEASES CURED WITH

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LITTLE CHICKS GROW BIG AND HEALTHY WHERE IT IS FED

A Guaranteed Egg Producer

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STATE IF FOR ANIMALS OR POULTRY

MENTION THIS PAPER

PRATT FOOD CO. PHILA. PA.

ESTABLISHED 36 YEARS

TWO PRACTICAL QUESTIONS.

Shall He Build a Cockerel House?
—What are Proper Dimensions for Feed Boxes?

Speaking of fertility and the isolation of the cockerels. I want to give my experience. It may not be of any more value than the statement of the boy that "pins saved many lives—by not swallowing them," for the reason that I did not isolate my males. I wanted to keep them separate, but had no good cockerel house and yard. Which things are essential if we don't want to have a general mix up when we are off on a visit to town. The gates must be proof against wind and small boys; and every precaution taken to keep the high fliers from coming in to call. Not having such a house and yard, I kept my cockerels with the hens.

The flocks were as follows:—Pen No. 1, 26 hens, 2 cockerels; pen No. 2, 45 pullets, 4 cockerels; pen No. 3, 37 pullets, 2 cocks; pen No. 4, 50 pullets, 4 cockerels. Some of the pullets from No. 3, got into pen 4 part of the time, and swelled the number to 55. The fertility of this latter pen was the lowest in March, about 70%; but after transferring ten pullets elsewhere, it came up to 95% in April. Pen No. 1 in March was 82%; pen No. 2, 86%; pen No. 3, 87% fertile. In April the fertility ran as follows:—Pen No. 1, 90%; pen No. 2, 92%; pen No. 3, 80%; (one rooster fought the other until he knocked him out of commission); pen No. 4, 95 per cent. Eggs under hens in March averaged ten chicks for every thirteen eggs set.

Now the question in my mind is this: Shall I go to the expense of putting up a cockerel proof yard and house, and add the care of this to that of the rest of the ranch? I know that leaders like I. K. Felch advise us to do this, and in view of their extensive experience I do not feel inclined to assert anything, but if we could have an "experience pool" on this subject we might come to some conclusion that would be helpful.

You will notice that I keep my hens in large flocks. By feeding as I do dry feed in feed boxes, and grain in litter in the winter, every hen gets her share; as they are accustomed to it from the time they are hatched they never overeat, and always seem to be in prime condition, averaging standard weight. Chicks hatched in March began to lay July 20th, and those hatched in June began to lay in November, and are still the best layers of all. They were all well developed when they began to lay, insomuch that passers by commented on their size. Even if grain was high, and still is up, they have always had what they wanted. Whether this has anything to do with the fertility I can't say; but I still get back to my question, "Shall I build a cockerel house?"

Wanted:—An Invention.

A feed box that will *actually feed* all sorts of grain, whole or ground, and beef scraps, *without permitting the chicks or the hens to scatter grain upon the floor.* I have made feed boxes innumerable, but they all fail to come up to my requirements. For coarsely ground grain they will simply pour it out on the floor, or else the chicks will throw it out with a sideways stroke of their beaks. When the grain is ground fine I have to poke it down with a stick every now and then. In either case part of it is thrown on the ground. If I make the opening big enough to feed finely ground grain freely, I find a chick in the feed box who has crawled his way up and kicked down an avalanche of grain that closes his exit, and starts his declamatory powers on the subject of defective feed boxes. If the reservoir below is too deep, a chick jumps into it, others jam him down, and then there is one chick less.

It is a fine sight to see them line up to the lunch counter, but it is mournful to be obliged to sweep up a mixture of litter and fine meal that will neither make a mash nor serve any other use but that of fertilizer. It is not theories we want, but *feed boxes* and inch measurements. I am satisfied that the successful feed box for chicks up to the third month, or even for hens must have certain dimensions that are the result of careful study and observation.

Dr. H. P. NOTTAGE.

Goshen, Mass.

AGE AND FERTILITY.

Are Well Matured Cockerels More Desirable Breeders Than Vigorous Cock Birds?



IT IS SELDOM that I fail to get an early hatched vigorous cockerel that is not a first class breeder. It frequently happens that these cockerels which are extra good breeders in their first year prove to be rather indifferent in their second year, especially during the months of February and March, and the first half of April. In fact, I have had so many yearling male birds and two year olds which proved indifferent during those months that I am almost tempted to discard them altogether. I find these birds good breeders during the latter part of April and May. To give you an example, I may say that I set a hen on thirteen Barred Rock eggs that were laid by two pullets, the male bird used in the pen being an April hatched Barred Rock cockerel. These eggs were set on March 14th, and hatched eleven chickens, the other two being dead in the shell. On the same date, I set thirteen other Rock eggs that were laid by pullets, the male bird being a yearling Barred Rock cock that had been especially vigorous the year before. From these eggs we hatched four chickens, seven of the eggs being infertile, and two chickens dying some time during the period of incubation. I have had practically the same results this year with White Wyandottes, White Rocks, Blue Andalusians, and Buff Rocks. Of course we meet some exceptions to this. Occasionally we get a cockerel that is a poor breeder, and in one instance I have bred from a bird that was an exceptionally poor breeder in his first year, and proved a good one in his second.

The difficulty I find is in getting good strong germs. The majority of us can get plenty of fertile eggs, or a very high percentage of eggs to start, and they will probably develop along nicely until about the fifth or sixth day, when they gradually die off. We find this to be particularly the case during the months of February and March, and it is only by the use of the most vigorous cockerels that I am able to overcome this difficulty at all. Of course exercise in the open air has some effect, as has

also the food, but I am inclined to believe that a cockerel which is well matured is a safer bird to breed from than a cock bird. There would be very many exceptions to this in the case of birds that are being used to produce fancy chickens, or that had been exceptional breeders of choice stock in previous years.

Guelph, Can. W. R. GRAHAM
Poultry Dept. Ontario Agr. Col.



WE HAVE read with considerable interest the views of your correspondents on cock and cockerel breeding. We have just received a letter from a party to whom we sent a

sitting of eggs from each of three of our yards. Yard 1 is headed by a three year old cock mated to eight early pullets, and our correspondent reports all of the eggs fertile. Yard 1-B is headed by a cock of the same age mated to seven early pullets, and the report is,—one infertile and thirteen fertile. Yard 2 is headed by a strong early hatched cockerel mated to nine yearling hens, and the report shows seven fertile and six infertile.

We used the cock in yard 1 last year and had very good hatches all season. We believe that birds that are well developed and are at all times supplied with the necessary elements to properly fertilize eggs will produce hatchable eggs. We separate our male birds as soon as the season is over, and we believe this is a great help in getting fertile eggs. We prefer very early hatched pullets to hens, especially so to hens that are over two years old.

The correspondent from House Rock Poultry Farm states that he finds bad results from cock birds if used before May or June. We mated up our cock bird in Pen 1, in January, and have a large per cent of fertile eggs. However, we take our cock birds from the pens at the date he puts his in, and keep them from the yards until the next season. We breed Langshans exclusively.

CHAS. G. MILLER & SON.

Boonville, Mo.

Mr. Cosgrove's Method of Feeding.



EDITOR FARM-POULTRY:—Since you published my article in March 1st number of F.-P., showing a profit of over \$2 per head from my 150 White Wyandottes, for the year 1901, I have had several visitors from out of town, and letters asking how I feed to produce such results, and as you said you would like an article on feeding, here it is.

I notice in March 15th number you have something to say against feeding the soft mash at noon. In common with most poultrymen, I used to feed the mash in the morning, but noticed that there was small incentive to work after their crops were comfortably filled with a nice warm mash, and a tendency to sit around bunched up; so I substituted a light feed of half cracked corn and half wheat—about a pint to each ten fowls—scattered in the litter in scratching sheds, which resulted in an increased number of eggs, and a more active and alert looking lot of fowls. They are still hungry at noontime, and the way they "go for" the warm mash is a caution. I take about eight quarts of hot skim milk and stir into it two quarts of Bowker's animal meal, a tablespoonful of salt, and all the bran and corn meal it will wet up; three parts bran to one of corn meal. About three times a week small potatoes boiled and skins taken off—about four quarts of them are chopped and stirred into the mash, and a teaspoonful of red pepper put in. All the waste from the table is put into the milk while it is slowly heating on the

kitchen stove. It is astonishing how much feed that eight quarts of milk will wet up; it makes a good twenty quarts or more of mash, all that 200 fowls will eat up clean.

At night they have cracked corn and wheat, sometimes buckwheat with it; I aim to give them all the variety I can afford. In each coop a three compartment box holds oyster shell, charcoal, and gravel, and they have a cabbage in each coop about three times a week. So much for *what* is fed: *how* it is fed is almost of as much importance, and much more difficult to tell. I have a fourteen year old boy living with me, and I find it almost impossible to instruct him how to feed the fowls properly. No set rule as to amount given, will work. I take a ten quart pail full of dry feed, and sometimes will need to come back for more, other times will bring back a third of it; it all depends on how the fowls act. To feed enough and not overfeed, is the most difficult problem the novice has to learn.

Under the above treatment my hens are laying remarkably well. Up to date, March 15th, they have laid 2,064 eggs this month, an average of 114½ per day. One day we got 145, which is doing well from 200 hens, considering what a stormy, windy, unpleasant month this has been.

GEO. A. COSGROVE.

Willington, Conn.

HEALTH-VIGOR-UTILITY.

FINE BREEDERS WELL BRED YOUNG STOCK
EGGS AND CHICKS.

R. and S. C. White, and Br. Lechmans, White Wyandottes, Chicks, 15c. each. Eggs, \$1 per 13; \$5 per 100. Breeders and stock for sale at reasonable prices. Square deal.

ORANGE POULTRY FARM,
Box 155, Derby, Ct.



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NO. 40 NEWELL ST.,

WATERTOWN, N. Y.

SINGLY, 75 CTS. 3 FOR \$1.50.

85c for 100 Sq. Ft.
Caps and Nails.

SWAN'S Felt Roofing
Extra Heavy

Fire, Wind and Water Proof, Samples free.
THE A. F. SWAN CO., 116 Nassau St., N. Y.

Trial of a Truth.

We make the statement that the
NEW PREMIER AND SIMPLICITY
Incubators

are the best, and then we show that we believe it ourselves by sending them on free trial. Here is the machine for safety and surety. Our detailed plans for Brooders, Poultry Houses, etc., sent for only 25c. You want a copy of our beautiful art catalog. Sent for only 4c. Columbia Incubator Co., 13 Arch Street, Delaware City, Del.



1868

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NETTLETON'S
LT. BRAHMAS

Mated for large size, Brahma shape, and correct markings. A few extra choice cockerels, at a fair price for quality. Eggs after May 15th, \$2 per 26.

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JOS. BRECK & SONS,

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White and Buff WYANDOTTES
BIRDS THAT WIN.

At Amesbury, Mass., 1902, won 4 firsts; 5 seconds; 2 thirds; 10 merit ribbons (4th) and 18 specials. At Boston show, 1902, first time showing, and only 4 birds) won 21 cock White, 51 cock Buff, in the open class. At Vermont state show, Woodstock, Vt., 1901, won 5 firsts; 3 seconds; 3 thirds; 2 fourths; 18 specials, and silver cup for best display.

Limited number eggs from best pens, per sitting, \$3; two for \$5. Satisfaction guaranteed. Circular free.

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It Hatches Like Nature's Way.
Because nature's methods are employed. No unnatural principles. No supplied moisture, but an equal heat and ventilation in the egg chamber. That's why it outlasts all others. Write for our free illustrated catalogue. Originators of the round incubator.
G. A. Osborn, Leominster, Mass., N. E. Agent.
IOWA INCUBATOR COMPANY
BOX 64 DES MOINES IOWA

Mr. Moss on Poultry Fattening.



EDITOR FARM-POULTRY:—

In your reply to Mr. Wellman, on page 233, I fear that you have not looked at the fattening question from every side, and while your conclusions are perfectly consistent from the premises you take—that the market conditions in this country are such as to make it inadvisable to more than half fatten, I am unable to agree with you.

Our difference of opinion, however, may result from the definition of the word fatten. If you accept it as meaning any visible fat deposited in layers, I agree with you. If you use the term in the sense I do, and as it is understood in Europe, to mean flesh with no visible fat, I do not. I am so fully convinced that the American people who produce the best meats in the world are able and willing to pay for the best of everything, poultry included, that they will demand it no matter what the cost. True, when prices become exorbitant, the circle of consumers is narrowed.

Now as to the quality of the meat being too rich, I think we would soon become used to it, as the old woman in Philadelphia did to cream rising on milk. She protested at first against the thick yellow scum that rose, but the milkman who had suddenly resolved to be honest, compelled her to submit to it. I am further strongly impressed with the truth of a remark recently made by Mr. C. W. Armour, the head of the Armour Packing Co., in speaking of the fattening of poultry which they are conducting now primarily for the English markets: "If you get anything worth having, America is the best place to sell. They will pay more for good food than any other people in the world." This statement from a man engaged in supplying the world with meat food is significant, and no one is more competent to gauge the situation than he, and as a result they are conducting the business on an enormous scale.

Your remark about the difference in results being due to adaptability of different fowls is very true, but the results that have been obtained in many experimental tests made by individuals in this country have been in some cases quite indifferent; not because the breed was an unsuitable one so much as that the feed was unsuitable, for that is the foundation, whether fed by machine or trough. Here again the term fattening has misled the experimenter, and any attempt to lay on fat can only succeed within certain limits, and beyond these the fowl is sickened, and opposite results follow; but even where the fat is accumulated in the most liberal quantities, who wants to buy grease at these prices? Now in a beef an abundance of fat deposited under the skin insures a liberal quantity in the muscles, and marbles the meat; not so with the corn fattened fowl, the globules are largely water, and the fat lies in layers in the abdominal cavity, while the meat after cooking is just as dark and stringy as before. True, the American poultryman is not directly interested in producing fattened birds for export, as he has no facilities for conducting this trade on a small scale, but the big packers have, and while they are exporting thousands of tons, they are depleting our home markets and making room for him to dispose of his stock on a ready market. I insist that every bird that goes to market should carry every ounce of *edible meat* (not grease) possible. We insist on this with all our food animals; why not poultry?

H. E. MOSS.

Kansas City, Mo.

What is meant by fattened or specially fattened, and what is half fattened poultry? Mr. Moss says that if I use the word fatten "as meaning any visible fat deposited in layers," he agrees with me. That is the way I understand and use the term; but in view of his next statement we do not seem to be in complete agreement, for I have always understood that in Europe the fatted fowl had an abundance of visible fat, and I am not able to find any European description of the process of fattening or of its results that indicates that the definition Mr. Moss uses has any European authority. Herewith are given two

pictures of prize fatted French poultry from Mr. Edward Brown's book, "Poultry Fattening." The reader will see that these fowls have an abundance of fat deposited just beneath the skin. Mr. Brown, in the article which we reprinted serially in F.-P. last year, (Jan. 15th), says:—"I have known cases where upwards of three pounds have been added to the weight of a fowl in a little over three weeks, but probably under ordinary conditions the average gain would be from one and one-half pounds to two pounds. Of course a certain amount of this would be surplus fat, laid upon the intestines and around various organs of the body; as in the case of



Specially Fatted La Fleche Poultry.

larger animals this must always be so; still, at the same time, the edible portions of the birds were enormously increased." To me the expression, "no visible fat," as applied to fatted poultry, is quite incomprehensible.

Of half fatted fowls the same authority says:—"A large number of birds are killed in



Specially Fatted La Bresse Poultry.

what is called half fat condition. These have simply been put up for feeding, either in open air or enclosed cages, without being crammed at all, and the result is considerably to improve the quality of the flesh, and to some extent add to its quantity, though of course they are not equal to the fully fatted birds."

As to other points mentioned by Mr. Moss, there is certainly room for differences of opinion. As far as quality goes, probably neither the American people nor any other people will ever get any better poultry meat than the best now produced here, produced without recourse to either close cooping or cramming methods, and under usual conditions easily fattened as much as is necessary, made as fat as people will take it. As a matter of fact what the American consumer wants for roasting is a meaty, quickly grown chicken carrying just enough fat to properly baste and flavor it in the cooking. More fat than this is objectionable to him. A chicken grown to meet these conditions and finished to the proper degree is vastly superior to a chicken as ordinarily grown when finished by a quick fattening process. When the chicken has not been grown so as to be what is desired without specially fattening it, special fattening is advisable. The use of the method should be determined according to circumstances.

To me it seems a mistake to assume that the European taste in poultry is better than ours,



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Their choicest poultry—the poultry bringing highest prices is their specially fatted poultry. To put it another way, they consider poultry fat a delicacy. We don't. They eat their chicken or fowl, a little slice or so to each person in a dinner of many courses. We make it a principal dish. It would seem, therefore, that the American poultryman's best policy was to produce poultry most suitable for the tastes and uses of people in this country who, as Mr. Armour says in the quotation above, "will pay more for good food than any other people in the world." I cannot see any wisdom in poultry keepers shaping their course according to conditions which do not exist, and probably never will in this country, nor can I see any special inducement to American poultrymen to produce for English markets when they have a better market of their own ready to take all the good poultry according to its standard they can produce. I had a little experience once trying to educate people to a different standard of taste in poultry. It didn't last long, and I did not let it become too expensive, but since that time I have been a very firm believer in the principle of finding out what the most profitable trade wants, and giving it just that,—trying improvements, if at all, only in the way of better catering to the popular demand.

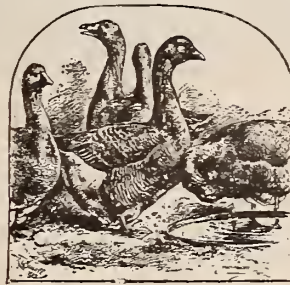
I believe there is a place for special poultry fattening methods in this country, but that the people who will be interested in them will not be producers of poultry, but handlers who see in it an opportunity to make a profit on the shortsightedness or negligence of those who produce inferior poultry.

That Depends.

In *Farm Journal*, "Lalia Mitchell" sings:—

"I like to read of fancy flocks
And ribbon bearing pens,
And blooded stock that's different from
My common barnyard hens:
And then go out a little blue,
Of failure half afraid,
To find my basket will not hold
Full up, the eggs they've laid."

The point, or lack of point, in which depends somewhat upon size of flock and size of basket. A celebrated "sermon" by an American humorist of long ago, has a reference to the giraffe, a creature that could "eat hay off the top of a barn—a,—dependin' somewhat upon the size of the barn—a."



Young Toulouse, Boston, 1899.

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Bristol, R. I.

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for White Wyandottes, \$1.50 per 15; \$4 per 50.
Selected brown \$2 per 15; \$5 per 50.
Eggs Light Brahmas, \$2 per 15; \$5 per 50.
Barred Plymouth Rocks, 7 \$1.50 per 15;
and S. C. White Leghorns, \$4 per 50.
We use trap nests. Address,
MICHAEL K. BOYER,
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1000 REDS, FREE RANGE.

Improved Stock, Original R. I. Reds.

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Box C, Fishers Island, N. Y.



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MME. A. RUPPERT,

6 East 14th Street, New York.

MARKET REVIEW.

BOSTON.

Eggs.—Receipts for April were very heavy, though not quite up to those of last year. Receipts for April, 1902.—169,756 cases; April, 1901,—175,644. During the latter part of the month, however, receipts were heavier than for corresponding periods a year ago. Thus for six days, ending May 1, receipts were 49,991 cases; for same period in 1901, 42,284 cases. Best western have been selling very close to prices for eastern, but as the season advances and the weather becomes warmer the proportion of western eggs that will bring full quotations diminishes. The supply of eastern eggs is reported limited, but offerings have to be extra good to bring full quotations.

Quotations at Mark.

Nearby and Cape, fancy 19. @
Eastern, choice fresh 17 1/2 @
Eastern, fair to good 16 1/2 @ 17 ..
Vt. and N. H., choice fresh 17 1/2 @
Indiana, Ill., etc., fancy 17. @
Western selected 16 3/4 @ 17 ..
Western, fair to good 16 1/2 @
Western dirties 15. @

Dressed Poultry.—Receipts of dressed poultry have of late been very heavy in comparison with those of last year, and in addition large quantities have been received for export. Receipts for six days previous to May 1 were, in 1902, 3,629 packages; in 1901, 2,537 packages. Receipts for export in this period in 1902 were 4,727 packages. In the next six days receipts were 3,753 packages; receipts for same period last year 1,662 packages. These receipts are mostly of frozen poultry, but the proportion of fresh killed stock is increasing.

Quotations.

Fresh Killed Northern and Eastern:—

Fowls, extra choice 14. @ 15 ..
Fowls, common to good 12. @ 13 ..
Chickens, choice roasting 18. @ 20 ..
Chickens, common to good 12. @ 15 ..
Broilers, ♀ lb. 20. @ 25 ..
Pigeons, choice ♀ doz \$1.25 @ \$1.50
Pigeons, com. to good 75 @ 1.25
Squabs, choice, large ♀ doz 2.50 @ 3.00

Western Iced:—

Turkeys, com. to good ♀ lb. 14. @ 15 ..
Fowls, choice 12 1/2 @
Fowls, com. to good 12. @ 15 ..
Old cocks 9 1/2 @ 12 ..

Western frozen:—

Turkeys, choice small 18. @
Turkeys, mixed weights 16 1/2 @ 17 ..
Turkeys, large 16. @ 17 ..
Broilers, choice 16. @ 17 ..
Broilers, common 14 @ 15 ..
Chickens, choice 14. @ 15 ..
Chickens, common 11. @ 12 ..
Fowls, choice 12. @ 12 1/2 ..
Fowls, common to good 10 1/2 @ 11 1/2 ..

Live Poultry.—Receipts continue moderate, and small lots of choice eastern fowls in steady demand at 12 1/2c.

Fowls ♀ lb. 12 1/2 @
Roosters ♀ lb. 8 @ 10 ..

PHILADELPHIA.

(From May 6 Report of Phila. Produce Exchange).

Eggs.—Receipts have fallen off during the past few days, and as many lots have gone into store for a later market, offerings have been light. There has been a fair demand for choice stock, and prices have ruled firm. Sales have been chiefly at 16c. for nearly in returnable crates, and 16 1/2c. for western in free cases, though some fancy selected storage packed stock has exceeded quotations.

Under the rules of the Produce Exchange, eggs are sold at mark until further notice.

Shippers should bear in mind that to command the outside prices, all poor, dirty, and small eggs should be taken out. This class of stock should be packed and shipped separately. Penna. and nearby, returnable cases, @ 16. Western, free cases 16. Southwestern, free cases 16. Southern, free cases 15.

Dressed Poultry.—There has been a fair demand for desirable lots of fresh killed fowls,

and prices have ruled steady, with offerings about equal to requirements. Frozen fowls are in moderate request and steady. The limited receipts of fresh killed broilers are promptly cleaned up at full prices. Fine frozen roasting chickens are in moderate supply, and fair demand at quotations. Frozen ducks and turkeys are scarce and firmly held.

NOTICE TO SHIPPERS.

Poultry intended for this market should be dry picked, with head and feet left on, and entrails in.

Fresh killed fowls, choice western @ 12 1/2 ..
Fresh killed fowls, prime southern and southwestern @ 12 ..
Fresh killed fowls, fair to good 11 @ 11 1/2 ..
Fresh killed old roosters 8 @ 8 1/2 ..
Fresh killed broilers, nearby 35 @ 40 ..
Frozen fowls 11 @ 12 ..
Frozen roasting chickens 13 @ 15 ..
Frozen broilers, nearby 22 @ 28 ..
Frozen broilers, western 16 @ 20 ..



The Breed that Lays is the Breed that Pays.

SINGLE COMB White Leghorns

Will lay more eggs and make you more money than any other breed. Fine breeding stock, snow-white plumage, yellow legs, typical carriage, fine combs. Our pens contain more prize winners from the leading shows of America than those of any other breeder of this single variety. We took first prize at the following shows: New York, Madison Square, 1901; Pan-American, 1901; New York State Fair, 1901; and FIVE PRIZES AT THE NEW YORK SHOW, 1902. Replenish Your Stock From These Prize Winners. Write for prices and full particulars.

High Grade Eggs from Splendid Matings, \$2 per 15 Eggs; \$8 per 100; \$60 per 1000. Also a few fancy, strong and vigorous cockerels to strengthen your flock. All orders, large and small, shall receive our careful attention. White Leghorn Poultry Yards, P. O. Box 529, Waterville, N. Y.

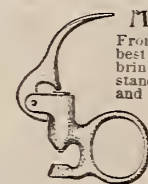
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Successful breeding of one variety exclusively. Insures the high quality of my

BARRED P. ROCKS.

Winners and excellent breeders. Eggs from my very finest pens, \$2 per sitting; \$8 per 100. Stock for sale. Satisfaction guaranteed. Circular free.

J. W. RANDALL, Prop., Malden, Mass. Meadowview Poultry Yards, 403 Salem St. Pure bred Irish Terrier dogs for sale.



MARK THE CHICKS.

From your prize winners, high scorers, best layers. Practice line breeding and bring your flocks up to a still higher standard of perfection. Form, feather and laying qualities. The New Acme Spring Lever Punch is the best, best and most convenient tool to do the work. Price 25 cents postpaid. Price list of Books, cuts, and supplies, free. H. A. KUHN, Box 400 C, Atlanta, Ga.

EGGS FROM BEST PENS

For the remainder of the season reduced to \$1.50 per 15; \$5 for 60; \$7.50 per 100. Barred, White and Buff Rocks; White and Brown Leghorns; R. I. Reds and White Wyandottes. Utility Barred Rocks, White Leghorns and White Wyandottes, \$1 per 15; \$2 per 30; \$5 per 100. Agent for Peep-o'-Day Brooders, Union Lock Feedings, etc. Circulars free. GEO. A. CHAPIN, Hampden, Mass.

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ENGINEERING, BUSINESS AND SHORTHAND.

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Perhaps you would be interested in the descriptions of the 23 varieties of

Land and Water Fowls

I breed. My big catalogue (sent free) describes them all, and quotes very reasonable prices on guaranteed eggs, by sitting or hundred, from well-mated, prize-winning stock. Let me send you a copy. My prices are right.

D. A. MOUNT, Box F, JAMESBURG, N. J. The Pine Tree Farm.

Rhode Island REDS.

Our strain matures in five months. May 31st is not too late to hatch them for winter layers, nor the month of June for the big shows. Fertility is running high. If you want eggs from matings headed by males that have won the highest honors at Boston, mated to pullets of their own get, which are fine, or eggs from the best laying strain of any breed that we have ever handled, write for prices.

FRENCH FARM,

Concord, Mass.

THOMAS HOLLIS, Proprietor.

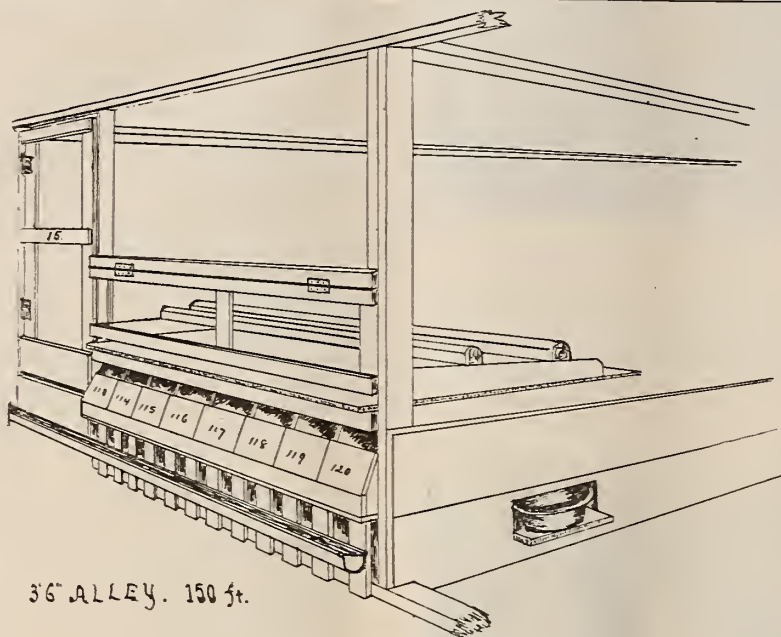
IF YOU

Want to raise some

WHITE WYANDOTTES

That will WIN at the BIG SHOWS next winter, I can sell you the EGGS that will hatch them. One sitting \$3; two sittings for \$5. Send for circular.

A. F. WRIGHT, South Sudbury, Mass.



36" ALLEY. 150 ft.

J. P. Kimmell, 644 W. 44 Place, Chicago, Ills.

ARRANGEMENT OF POULTRY FIXINGS FOR DOING WORK FROM WALK.

The sketch requires no explanation, as it plainly shows that the droppings board can be cleaned daily in the alley, as well as can the eggs be frequently collected from each individual nest of each pen without disturbing a laying hen. In a one or two hundred foot henery this plan is most desirable. If desired, a water trough the full length of the house can be introduced, as shown; or else water pans set in every other partition can be used, as is also shown. The doors of each pen can, by a little Yankee ingenuity, be made to open both ways, which is very desirable when the front is not opened, as shown in draft. In the drawing the wire front is hinged, making it convenient for separating all the hens for various causes, and without any disturbance if done at night time. By this means the hens can always be kept kind with kind; for instance, fat with fat sick with sick, sitters with sitters, males with males, and the well with the well; thus enabling the careful attendant to care for each fowl according to his individual wants. The wire is not represented in sketch. —J. P. K.

Frozen turkeys 18 @ 18 ..
Frozen ducks 13 @ 16 ..
Squabs, white, ♀ doz \$2.00 @ \$2.25
Squabs, dark, ♀ doz 1.25 @ 1.50

Live Poultry.—Receipts of fowls are moderate, and the market is steady, with demands about equal to the offerings. Spring chickens are a little more plentiful and easier, but sell fairly at revised prices. Ducks are mostly of poor quality, and demand is light. Fowls, as to quality 12 @ 12 1/2 ..
Old roosters 8 @ 9 ..
Spring chickens, weighing 1 1/2 @ 3 lbs. to the pair 28 @ 30 ..
Spring chickens, larger sizes 23 @ 25 ..
Ducks 11 @ 12 ..
Geese 9 @ 10 ..
Pigeons, ♀ pair 20 @ 25 ..

CHICAGO.

Eggs.—Firsts, cases included 14 1/2 @ 15 1/2c. in mark, cases returned 14 1/2 @ 15c. seconds \$4 @ \$4.20 case, checks \$3.90 @ \$4 case, storage eggs 15 1/2 @ 15 3/4c.

Live Poultry.—Turkey hens 12 @ 12 1/2c., young gobblers 10 @ 11c., old toms 9 @ 10c.; chicks 11c.; roosters 6c.; broilers 18 @ 20c.; ducks 10 @ 11c., geese \$4 @ \$6. Iced poultry about same as live, with slight premium when fine.

NEW YORK.

Eggs.—Reported generally active. In western, fine stock is scarce and in demand,

but average grades are plentiful, and dealers urge sales. Quotations.—State, Penna., and nearby fancy selected fresh 18 @ 18 1/2c., average 17 @ 17 1/2c., western 16 @ 17c., southern 15 @ 16c., checks 14 1/2 @ 15c.; duck eggs 18 @ 23c.; goose eggs 20 @ 25c.

Dressed Poultry.—Market reported steady, with stocks which had been accumulating well worked out. Turkeys 8 @ 13c.; Phila. broilers, fancy 35 @ 40c., Penn. 25 @ 30c.;

fowls 11 1/2 @ 12c., old cocks 8 @ 8 1/2c.; frozen capons 17 @ 19c., do. broilers 18 @ 19c.; spring ducklings 18 @ 19c.

Live Poultry.—Fowl in full supply, and a good deal of stock being carried over. Ample receipts of turkeys, ducks, and geese. Fowls 11c.; turkeys 10 @ 11c.; ducks 60 @ 80c. per pair; geese 75c. @ \$1.12 per pair.

KANSAS CITY

Eggs.—14 @ 14 1/2c.

Live Poultry.—Broilers 20c.; fowls 8 1/2c.; turkeys 8 @ 10c.; ducks 7 1/2c.; geese 4c.; roosters 20c. each.

New York Egg Conditions.

It is thought by authorities who are in a position to know that there are as many eggs in the coolers of this city and Jersey City as there were this time a year ago. Considering that the storage facilities have been increased since last season, there is plenty room left which was intended should be filled with eggs. And the present indications are that it will be used for that purpose.

Advices from Ohio and Michigan territories where the best goods come from at this time of year state that buyers are paying 15 1/2 @ 16c. in the store. Judging, however, by the increase in the small shipments, it looks as though the buyers in the country are either

VALLEY FARM, BRONZE TURKEYS, FAVORABLE, BREEDERS—EGGS.

letting up or they are lowering the prices. Receivers have begun to notice a steady increase from that class of shippers who they know have been selling their stock at home.

Also the heavy operators who have been bulling the market, and who it was alleged by some of the daily papers, were backed up by what they termed the "heef" trust, have not been so keen for the goods. This necessitated shipping to this market, as prices continued to hold after the one cent drop two weeks ago.

Another thing which speculators must contend with and give a great deal of consideration to is the fact that all shippers who made contracts for their April production are now footloose, and do as they please with what stock they get.

The general feeling is the same as it was a month ago. Conditions are uncertain. Many dealers who stored heavy last year and contemplated putting away heavy supplies this year stayed out on account of the high prices. If this element concludes to come in the field and take what they can get, or the best they can get as a last resort, it will have a tendency to hold the market up, but if they decide to keep out altogether nothing can hold the figure up to what it is today, is the opinion of the learned ones. This conclusion they draw from the general run of happenings which shows that the big storers have accumulated about all they care to have, and that they are afraid to go in much deeper. At this writing the quotation in New York for regular packed is 17c.; a year ago it was 13½¢@14c., and two years ago on the same date it was 12½¢@13c.

100,962 cases. In eggs the shortage is marked, receipts for the four months last year being 406,354 cases.

The stock of cold storage eggs in Boston is said to be about 50,000 cases. This time last year about 85,000 cases of eggs were in storage. The greater part of current receipts is being stored.

Comparisons of current prices of eggs and poultry with last year's prices are interesting. Here are some from Boston market reports.

	1902.	1901.
Eggs, nearby and Cape fancy,	19c.	15 to 16c.
Eggs, western selected fresh,	16½ to 17c.	13½ to 15c.
Fowls, extra choice,	14 to 15c.	13 to 14c.
Chickens, choice roasting,	18 to 20c.	17 to 18c.
Broilers,	20 to 25c.	30c.
Live fowls,	12½c.	10c.
Roosters,	8 to 10c.	6c.

It is interesting to note that the greatest advance is on the poorest class of poultry, and that broilers are lower this year than last.

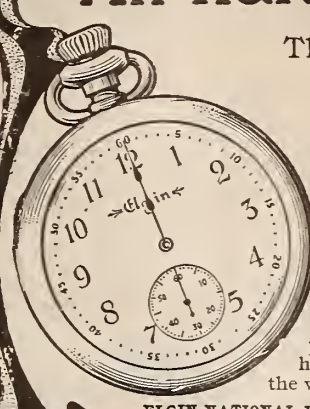
W. B. Glafke & Co., of Portland, Ore., write to the *Chicago Packer* describing the method of packing eggs to ship to the Klondike:—"In order to protect the eggs from the extreme cold weather each egg was wrapped in paper; we used extra heavy fillers and egg cases; the cases were then wrapped in asbestos paper, and afterwards wrapped in heavy canvass. This keeps them from freezing even during the extreme cold weather that they had during the winter. The last reports from Dawson are to the effect that eggs are selling from \$40@42 per 30 doz. case."

nine days old. The eggs they were hatched from were pullets' eggs, but a friend of mine hatched 36 out of 50 from the same stock, and now has them at three weeks old.

E. A. W.

There are two probable causes for the failure of these chicks to live. They were evidently not properly incubated, and they were given a risky diet. In general chicks which

All Hands On Time



The second hand,
the minute hand,
the hour hand, run
in unison on an

ELGIN Watch

Perfect in construction; positive in performance. Every genuine Elgin has the word "Elgin" engraved on the works. Illustrated art booklet free.

ELGIN NATIONAL WATCH COMPANY, Elgin, Ill.

LOW PRICE

Don't mean cheap eggs in my case, for after

May 15th

I shall sell eggs from all my pens at \$1 per 15; \$5 per 100. 30 pens White Rocks; 2 pens Barred Rocks; 2 pens R. I. Reds; all grand business birds in every sense of the word. One customer writes: "We are very much pleased with the stock hatched from your last lot of eggs (he had 100, ordered 150 more); they are without exception as fine a lot of chicks as the writer ever took from an incubator." If you want some of the same kind, write to

E. S. HOWE, 915 Varnum Ave., Lowell, Mass.



DUCK YARDS, SHOWING SOME OF THE HOUSES AND A SWIMMING POOL, POLLARD'S POULTRY FARM, SOUTH ATTLEBORO, MASS.

The receipts have continued heavy, and Wednesday saw the heaviest of the season, when 27,942 cases were reported. The bulk of these went to Jersey City warehouses, and were the result mostly of April contracts. Western and southwestern stock now is ruling 4¢@4½¢ below northern except when it grades up to strictly fresh, and there is sometimes a noticeable accumulation of southern. Buyers are displaying more discrimination on all lines except probably the fanciest marks.

The "loss off" rule, which was in effect last year, does not apply this season, as it was not included in the new egg rules which went into effect last winter.—*New York Packer*.

MARKET NOTES.

Receipts of eggs at Philadelphia Jan. 1 to May 6 were 245,687 crates and 89 barrels. Receipts of poultry for the same period 53,026 boxes, 9,382 barrels.

Receipts of poultry at Boston for the first four months of the year were 98,634 cases, receipts of eggs 334,687 cases. Poultry shows but a slight falling off in comparison with last year's receipts for the corresponding period,

Why Did These Chicks Die?

Editor FARM-POULTRY:—I filled my Cyphers incubator with 120 eggs, and started it with the lamp flame so that the disk on the regulator was raised about a half inch when the directions say it should not be over one-sixteenth inch. My temperature was never over 103½°, but of course it allowed more flow of hot air, and, consequently, more evaporation. I noticed that at twenty-one and a half days two eggs were pipped, and on the morning of the twenty-second day they had just come out. Chicks continued coming up to the morning of the twenty-fourth day, when I took nine out of the shells, making 82 chicks out of 112 fertile eggs. The remaining eggs when broken were found very dry, and most of them looked as though they had not died before the nineteenth or twentieth day.

I put them in a Cyphers outdoor brooder with the temperature at 95°, and fed them on a mash composed of two parts bran, and one part meal with ten per cent of grit added, and wet up with sour milk for the first forty-eight hours, then omitted grit, but kept plenty by them. After four or five days they began to die—from no outside cause—and at present writing I have about 25 left, they being now

do not hatch approximately on time have something wrong with them. If they come either too early or too late it is because the correct combination of conditions has not been maintained during the period of incubation. A good hatch—in numbers—does not always spell strong chickens. Chickens hatching after the twenty-second day are rarely worth keeping. More than ten per cent of these were taken out of the shells on the twenty-fourth day. A considerable percentage of chicks brought out under such circumstances would, in the natural course of events, die within a very short time, though exceptionally favorable conditions and good care might carry most of them through.

These chickens were started on a mash wet with sour milk. How wet is not stated, but sour milk is not a good article to use for very young chicks. Those of rugged constitution and sound digestion may do on it. It is safer not to give sour food of any kind until the chick passes the baby period and begins to be able to stand some roughing. These chicks being abnormally hatched, the chances were against them from the start, very much against them on any ordinary care, and still more so on a diet as described.

The addition of grit to their mash was not necessary, and the amount used was far beyond any possible need. They probably did not eat more than a small part of it. The beginning of trouble, however, was in the irregular hatch. Mr. W. must get the incubator where he can hatch in the normal period,

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CURE ABSOLUTE

and as harmless as fresh air. Thousands of patients have used this treatment. Physicians endorse it. Write to us for

FREE TREATMENT.

Send 4 cents to cover postage, etc. Correspondence strictly confidential. Everything in plain sealed packages. You can make "Reducto" at home if you desire; you know the ingredients and need have no fear of evil effects. Address,

GINSENG CHEMICAL CO.,
3701 S. Jefferson Ave.,
St. Louis, Mo.

REDUCTO

DAVIS'

Blue Barred Plym. Rocks
Boston, 1902.

In the largest and best show ever held in the world my Rocks won the most coveted prize, **FIRST** and **THIRD PENS** (14 pens competing). I showed 6 cocks in the open class, winning 5 ribbons in the largest and best class of cocks ever shown at Boston—(30 cocks being unplaced).

At Haverhill, Mass., Dec. 10-13, 1901, Hawkins judge, 1 won 1st (94) and 2d cock; 1st (34) and 2d hen; 1st (94), 2d and 4th pullet; 1st (33) 2d, 3d and 4th c'k's, 1st pen; Silver cup for best display, and many specials.

At So. Framingham, Dec. 3-6, 1901, 1 won 1st c'k'l, 1st cock, 1st pullet, 1st pen; Silver cup for best two males and five females, and Silver cup for best display in the whole Am. class.

EGGS from 10 grand pens, 5 mated for exhibition cocks'ls and 5 for exhibition pullets, \$5 per 13; \$5 per 26; \$7 per 40; \$10 per 65; \$15 per 100. I guarantee the safe arrival of eggs and a good hatch. Send for folder giving a description of my pens for 1902.

W. B. DAVIS, Haverhill, Mass.
Care of Merrimack Nat. Bank.

FARM-POULTRY

Semi-Monthly.

The 1st and 15th of each month.

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JOHN H. ROBINSON, Editor.

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On May 1st the editor of FARM-POULTRY visited the duck farm of Weber Bros., at South Wrentham, Mass. In the next issue of the paper a report of what he saw and learned there will be given. There is now there a new plant. The last of the old buildings will be removed this summer. Descriptions of the old plant in FARM-POULTRY were always interesting. The new plant is larger and better than the old. We secured a number of good photographs of its features, and can promise readers a well illustrated article, full of interest.

As this paper is mailed, the editor will be in Rhode Island among the colony poultry growers and goose growers, having previously visited the farm of Samuel Cushman & Co., to report on goose culture as carried on there. Reports of this visit will be given in June 15th paper.

EDITORIAL.

That Alleged Poultry Trust.

NEWSPAPER dispatches have had a little to say recently about an alleged "corner" in poultry and eggs, or "poultry trust,"—the same apparently being assumed to be a collateral branch of the so-called "beef trust." We have no sympathy with any efforts to control trade and manipulate prices by unnatural restrictions on production and exchange, by open destruction of competition, or by the more subterranean methods which are associated with the lives of big business men who indulge to excess their monopolistic passions. At the same time we can't help knowing that the greater part of what is said and printed about the "beef trust" is what is commonly known as "rot;" and in regard to the poultry and egg trust we have no hesitancy in saying that about all the truth there is in the reports is that certain large packing firms and some firms dealing extensively in poultry have bought large quantities of poultry to hold for a rise. We have no reason to suppose that they have any further control of the market than is involved in their ability to hold what goods they have until they can get the highest possible price for them. In case of a shortage they could put their stuff on the market at a very high figure, and sell what the trade would take at that figure. In such an event they make "a pile of money." But they have absolutely no control of production, and control the collection of but an insignificant part of the country production of poultry and eggs. They can make neither a scarcity nor high prices, though their resources of capital and storage enable them to buy large quantities of both poultry and eggs when they are cheap and hold for the periods of scarcity.

As far as we are able to see the results of the introduction of this speculative feature into the poultry industry have been very much to the advantage of producers of poultry, and of some advantage to consumers, because it has greatly reduced the former enormous waste of poultry and eggs at periods when the markets were glutted, and has operated to equalize prices. So far the advent of these big concerns into the poultry business appears to have been distinctly beneficial. It may be as some say that their ultimate object is to secure such control of the distribution of the poultry products of the country that they can impose such terms as suit them upon both producers and consumers, but we have little fear of such results ever being brought about. The conditions with respect to the handling of beef, mutton, pork, and veal are much more favorable for such results than are the conditions with respect to poultry; yet from the best information to hand it appears that even now, after years of effort the big concerns do not control half of the product. It ought further to be said in regard to the present high prices of meats and the relation of the packers to the producers that if one may judge from the attitude and utterances of the agricultural press of the country on this matter the farmers are getting their due share of benefit of the high prices, a fact which the daily papers do occasionally let out, but do not advertise in "scare heads" across several columns and down a half a page, as they do some other aspects of the subject.

We are not defending or apologizing for those concerned in the "meat trust." They seem to have many sins to answer for, and we hope to see them brought to book for them; but their faults are not more serious when viewed from a little distance than are the faults of their opponents in newspapers and elsewhere who either through ignorance or intent misrepresent conditions and falsify facts, and by their unreasonableness discredit their case in the minds of the less excitable section of the people, and in so doing do more against the cause than they have done for it.

Practically, anyone, anywhere, who is so situated that he can produce poultry and eggs for market can prepare his products for sale and ship them himself. No special facilities or expensive equipment is required.

The conditions of production also are different, and there are some things in this connec-

tion which the men who study the markets from the middleman's point of view seem to fail to grasp. For instance,—last fall the advance in the prices of grain sent an unusually large proportion of the season's crop of poultry to market. (This excess, by the way, furnished the opportunity for the speculators, and if they had not been ready to take advantage of it prices would then have gone lower than they did). Reasoning from that fact the trade papers assumed a short crop of both eggs and poultry this year. On the face of things the assumption was reasonable. The outcome, however, has shown that there were other factors not considered. During the winter there was a shortage of eggs as predicted. But it was not because of the reduction of stock. It was due to other causes. Since a free production of eggs began receipts have been heavier than last year. The trade paper commentators now assume that they were in error as to the reduction of the poultry stocks of the country. A poultryman, however, finds no difficulty in harmonizing the two conditions, for he knows that it is common to overcrowd the poultry on farms, whence the bulk of the crop of both poultry and eggs comes, and knows also that frequently a very large reduction of the stock of laying hens results in a larger egg yield from what hens remain than would have been received from the original stock.

It is altogether probable, speaking of the poultry stocks of the country as a whole, that they could be reduced even more than they were last year, without decreasing the total output for a succeeding year. There are natural laws at work here, and they work more rapidly with poultry than with any other kind of domestic stock.

Then with regard to the production of poultry meat. It requires some years to build up from a small start a large stock of any other kind of live stock, but poultry is different. Successful work with poultry yields quick returns, especially to the farm poultry keepers who may be induced by high prices to give the farm poultry a little better attention, to provide suitable accommodations for larger flocks, to raise more, and sell more, and yet keep more and have them do better than ever before. Truly,—when we consider how the American farmers by a little "taking thought" can increase the poultry output of the country with an increase which is nearly all profit to themselves, we find no cause for worry over possible poultry trusts.

Working and Worrying Poultrymen.

HENRY WARD BEECHER once said:—

"It is not work that kills men; it is worry. Work is healthy; you can hardly put more upon a man than he can bear. Worry is rust upon the blade. It is not the revolution that destroys the machinery, but the friction."

Mr. Beecher was not writing of poultry at the time,—though we think he was reputed somewhat interested in fine fowls,—but his sentences have a very practical lesson for poultrymen who work long hours and worry more hours of every day than they work.

Causes of worry are manifold. The principal and most troublesome ones come from the prevailing practice of planing operations beyond the means and capacity of the poultryman, and frequently also beyond the capacity of his plant. Then when troubles begin to multiply, the poultryman looks for their causes everywhere but where he should look, and not finding them, soon worries himself into such a state of mind and body that his poultry operations rapidly go from bad to worse.

The seed of most troubles of this kind—troubles due to the causes mentioned above—is sown in the spring. The crop begins to mature with the first excessively warm weather, and keeps right on maturing for the remainder of the season. Gardeners plant seeds of some kinds, for a succession of crops, at intervals of two or three weeks. Poultry-

men who sow seeds of worry in the spring generally get more successive crops of worries than they are able to take care of from a single sowing.

Avoid these worries now. Don't hatch more chicks than you have room for as they grow. Don't plan to produce more than you can buy the feed for until they begin to yield returns of some sort. If you are inexperienced, don't try too many different lines or branches of poultry keeping at once. Give attention to one only this season. Don't think that trying several new things on a small scale is as easy as trying one on a scale equivalent to the several combined. Generally it is not—and for the simple reason that you have several times as much to think about, and your prospective crop of worries will be out of all proportion to the amount of work involved.

Take one step at a time: pay as you go: if you can't pay, don't go; and your work will be easier and your worries lighter.



Poultry, Seasons and Weather.

A CORRESPONDENT writes:—"I was surprised to see a statement by Henry Steinmesch in a recent number of *Commercial Poultry* that chickens were unaffected by drought or wet weather, and that there was no such thing as an unfavorable season for poultry. Why, I know from my own experience that that is not so, and hot dry weather is one of the worst setbacks growing chicks can have. Such a statement seems strange coming from a man who is supposed to be well up on poultry, and this is one of the cases where the novice is led wrong."

If Mr. Steinmesch has not been misinformed, he is certainly in error in putting the case so broadly, though with qualifications there is some truth in it. Animals and fowls while not unaffected by weather and seasons are less completely at the mercy of the "elements" when those uncontrollable things take courses inimical to life, than are the creations in the vegetable kingdom. A farmer who has a field of grain dependent on rains for moisture can neither take it to water nor bring water to it. With his herd of stock or his flock of poultry it is different. The animal is a degree higher in the scale of life than the vegetable, and by that much better able to hold its own under adverse conditions.

For poultry a poultryman can make such provisions that for him the bad season will come but rarely, and when it does come its ill effects will be greatly mitigated.



Editorial Notes.

Of the movement started by *Commercial Poultry* to raise a fund to be applied to make restitution of the amount defaulted by the ex-treasurer of the American Poultry Association, that paper says:

"The Bridge fund is growing, but it is growing much slower than we hoped it would. Before we started the movement we were led to believe that the response would be a ready one and that contributions would come in rapidly. We did not expect that the individual contributions would be large, but we hoped they would be more numerous than they are."

"We want to urge this matter on our readers. It is all right to talk of justice and to say that Bridge brought his troubles on himself, but it is not for Bridge that we are seeking to settle this matter. It is the faithful wife and the innocent children whom we are endeavoring to shield. However guilty Bridge may be, we can afford to condone his offense for the sake of his family. However high we may hold our heads in the consciousness of our own rectitude, we should remember the old tale wherein it was said to the accusers of a guilty one: 'He that is without sin let him cast the first stone.'"

* * *

Poultry press comment on this movement is on the whole unsympathetic. While there is a proper regret for Mr. Bridge and the natural sympathy for the man who has fallen, and for those personally affected by his fault, the general opinion seems to be that the law should take its course, and that the matter is not one where public charity should be exercised. There is a principle involved. Restitution does not condone the offense against public welfare. In a similar case the other day a

Massachusetts judge refused to allow a case to be withdrawn on the ground that an adjustment satisfactory to the parties concerned had been reached, saying that the action was a criminal and not a civil one, and that the interests of the state must be considered.

The Pigeon Department—That Was.

A subscriber who has recently become interested in pigeons, writes to ask why we dropped the pigeon department. That is going a long way back. The pigeon department was a thing of the past when the writer first became connected with this paper five years ago. The principal reason for discontinuing it was that not enough persons were interested in it to warrant giving it the space and attention required.

To be sure that may have been in part because the department as conducted was not what the people wanted; but it is a fact that none of the other lines more or less accessory to the poultry industry will support a paper as the poultry fanciers and breeders do, and to run successfully a paper must pay, and a poultry paper must be satisfactory to the poultrymen who give it its chief support. It is not satisfactory to them when any considerable space in it is given to side issues.

The poultrymen of this country support their papers better than any other class of people interested in a trade paper, and that being the case it is the height of folly for the poultry papers to neglect them and cater to the side lines for the sake of the scattering patronage thus secured. Some papers do it, but we have no reason to suppose that they find the results in the end satisfactory.

A Canadian Opinion on Poultry Fattening.

It seems about decided that our birds sent to England during last season, while of prime quality, were too large, and by the same argument, too old. The meaning of this, we are told, is that we must have a three months chicken, well fed and carefully handled. Transposed, that means a great simplifying of the whole question of meeting the demands of this market. If we had had, when first beginning export, as good a class of birds as we now have and as good an understanding of what is wanted as is now ours, the crammer would never have been heard of, and we seriously doubt if a system of feeding would not have been devised which would have obliterated the necessity for crating. None the less, we see much in favor of the crate feeding system. It ensures uniformity of birds, prevents fighting, avoids waste, and is a step towards easier conduct of the business. Supt. Graham says it is not so much a question of breed of bird as shape of bird. That is unquestionless true, but like the bacon hog, the desirable shape occurs most frequently in certain breeds. We shall be much disappointed if the market demand, as at present announced, cannot be met with pure bred birds handled without any such extra expenses as the previous work has entailed. Peace be to the crammer, anyway.—*Maritime Farmer*. (Can.)

To Keep Away Hawks.

Editor FARM-POULTRY:—I want to give you a bit of my experience. For five years I was trying to do something to keep hawks from taking my chickens, but in spite of all they would take them almost daily. Sometimes one would dive down within a few feet of me and fasten to a chick and take him away without touching the ground, seemingly, or slackening his speed. At last I bought a ball of common cotton twine, such as is used in all stores, and strung it out in the orchard where one brood was located, the same as New England farmers line their corn.

Mr. Hawk came, but dared not go under the line, and not a chick did I lose until they strayed beyond the line, then more line put a stop to it, and for three years I have had no trouble with the pests. It is inexpensive, and I think many F.-P. readers will be glad to try most anything to save their chicks.

Piermont, N. H.

A. M. SIMONS.

Everything Knowable About Poultry

The American Poultry Institute, with its staff of half a hundred instructors, all practical, successful and expert poultrymen, teaches by correspondence everything known about poultry. The

Combined Knowledge of Experts Available

For our students. The years of experience to be utilized for the benefit of unsuccessful poultrymen and those wishing to learn.

CAN BE OBTAINED NOWHERE ELSE.

Study this month : --- INCUBATING AND BROODING.

Special terms to students now being offered. Send stamp for information.

THE AMERICAN POULTRY INSTITUTE, Dept, P. 3.

The Law Exchange Building, BUFFALO, NEW YORK.

ANSWERS TO QUESTIONS.

THE OBJECT OF THIS DEPARTMENT IS TO HELP READERS OF THE PAPER IN EMERGENCIES. It is a short order bureau of information.

Correspondents who ask for information or advice in matters requiring prompt attention, will be answered in the earliest possible issue of the paper made up after their inquiries are received. If inquiries will keep in mind that THE FORMS FOR AN ISSUE BEARING DATE OF THE 1ST DAY OF A MONTH CLOSE ON THE 20TH OF THE PRECEDING MONTH, AND THE FORMS FOR AN ISSUE BEARING DATE OF THE 15TH DAY OF A MONTH CLOSE ON THE 5TH DAY OF THAT MONTH, they may know just how soon replies to questions can reach them through the paper. Inquirers are requested also to keep in mind that while an important feature of the paper, this department can only be given its due proportion of attention, and when inquiries requiring special investigation before a reply can be made are received, some time may elapse before the matter can be given attention.

IN CASES OF SPECIAL URGENCY THOSE WHO ENCLOSE STAMP FOR REPLY WILL BE ANSWERED AS PROMPTLY AS POSSIBLE BY MAIL.

Correspondents whose questions do not come within the scope of this department as outlined above will be referred to the most recent available information in line with their inquiries.

BE SURE TO SIGN YOUR LETTER. WRITE YOUR NAME AND FULL ADDRESS VERY PLAINLY.

New York Experiment Station. (P. R. W.)—The New York State Experiment Station is located at Geneva.

Late Hatched Chicks. (S. S. A.)—The symposium on "Late Hatched Chicks" was published in the issues of the paper for June 15th and July 1st, 1901. The two papers will be sent you from this office for 10 cents.

Punch Marking Young Chicks. (A. C. S. B.)—There is no need of injuring the foot of a little chick by punch marking. The hole is made in the web, and if made when the chick is a day or so old will hardly bleed at all. A careless use of the punch might injure the toes, but with proper care to make the mark where it should be there is no risk.

Bumble Foot. (C. L. C.)—The treatment for bumble foot recommended in "Farm-Poultry Doctor" is:—"Open the abscess with a clean slender knife, wash out all matter with warm water containing carbolic acid, then apply nitrate of silver, ten grains to one ounce of distilled water. Keep the bird on clean straw for three or four days.

Who Sells Chicks Just Hatched? (S. S. A.)—Elm Poultry Yards, at Hartford, Conn., sell new hatched chicks, and are quite near you. There is just a line in their advertisement on this point, and it would hardly be noticed except by one interested in the rest of the advertisement. There may be others. I happen to know aside from the ad. that Elm

Poultry Yards sold chicks, and looking up the ad. noticed that that part of it, while quite prominent, was not enough so to be readily noticed by one looking for just that. I have suggested to our advertising department that they recommend parties advertising chicks, to use a few lines in the classified columns. Meantime those who want chicks should go through the general advertisements.

Treating Brooder Chicks for Lice. (H. W. N.)—Your chicks hatched in an incubator and brooded in a new brooder presumably need no treatment for lice. Under such circumstances the use of an insecticide is superfluous, unless you have reason to believe it is actually needed, as it might be if arrangements were such that lice from elsewhere might have been conveyed to the brooder, or to the chicks in the quarters they occupy.

Removing Chicks From Nest While Hatch Is Progressing. (J. H.)—"Which is best,—to remove chicks from the nest as they hatch or when dry, or leave them until all hatched?"—Leave them, unless there is a particular reason for not doing so. It all depends upon the hen. If she is quiet, and everything going well it is best to let them alone. If she is trampling chicks or crushing eggs it is well to remove the chicks as fast as hatched, and may be advisable to take the eggs away, or put another hen on them until hatched. I would add that in general a poor

hatcher is a poor mother while the chicks are small, hens of the disposition that makes them restless while the chicks are hatching being apt to be quite "senseless" in caring for their chicks. No small part of success in hatching and rearing by natural methods depends upon judicious selection of the hens used.

Safest Way to Feed Chicks. (H. W. N.)—"What do you consider the safest way for me? I have an incubator to come off soon, and intend to put chicks in a Peep-o'-Day brooder. Is it safe for me to feed them there for six or eight weeks on Cyphers' chick food, or to feed on food of my own making?"—That depends on your knowledge of and skill in feeding. If your success using food of your own mixing has been satisfactory in the past I should say there was no difference as to safety, and you should be able to mix your own feed cheaper. If you are not sure of results by your method of feeding, the prepared food would probably be the better one for you to use.

Brooder at Too Low Temperature. (K. G.)—"What is wrong with my chicks? They are two weeks old, refuse food, and appear to breathe very hard, and die. We keep them in a brooder at about 80°, and feed johnnycake, cracked wheat and fine oatmeal, with bread crumbs and eggs occasionally. Have let them run in the open only when warm."—If the heat has been at 80°—or about that—from the start, it has been too low, and effects described would readily have resulted from that condition. The trouble apparently results from cold, but its precise character cannot be determined at long range on the information given. The essential thing in such cases, however, is to know and remove the cause. Doctoring the sick chicks is unprofitable. The best course for their owner to take is to kill all that do not seem vigorous, (there may be a proportion of fairly good chicks, even though the general run are not), and avoid a recurrence of the trouble with later hatches.

Effect of Moving on Laying Hens. (F. D. B.)—"My pen of Barred Plymouth Rocks was moved from old to new residence April 5th. For ten days there was no dimi-



A Good Hatch

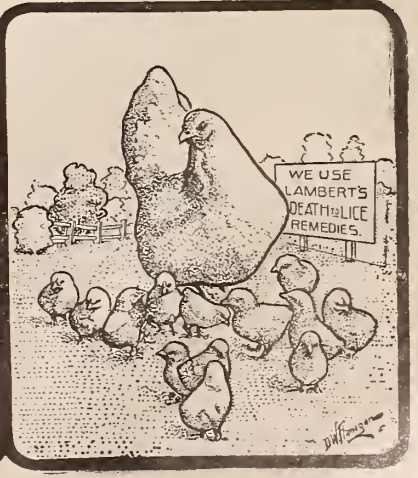
Of strong healthy chickens is not the result of luck or chance. The best hatches are secured by those who use

Lambert's Death to Lice

On their breeders to preserve their health and vigor, and on their sitters to keep them clean and comfortable. It injures nothing but vermin. Trial size, enough for 10 applications, 10c. postpaid. A 48oz. 50c.; a 100oz. \$1 from here or nearest agency by express. Book Free.

D. J. LAMBERT,

Box 800, Apportion, R. I.



nation in number of eggs. Then from nine to twelve eggs a day they dropped to three to five. Can this decrease be laid to change of location, all other matters of feed, care, etc., being equal? I have no broody hens in the lot."—In a case as described I should judge that decrease of egg yield was probably due to changed conditions, and not to the mere changing of location. A falling off in egg yield due to the latter cause would have been likely to come almost immediately, while a decrease due to different conditions would probably occur about as described. Knowing nothing of conditions either in the old or new home of the hens, it is not possible for me to make any further suggestions. Mr. B. should make a careful comparison.

Chances Were Against Good Hatches. (J. H. S.)—"I thought a sitting of eggs from —, and three hatched out, and I bought three sittings from — and eleven hatched out. Could you let me know how that is for an average? They came a long way, and got seventeen miles stage ride at the end."—Mr. S. lives in California; the first lot of eggs was shipped from Massachusetts, the second from New York. Add to such distances the seven-teen-mile stage trip at the end of the route, and I call these good average hatches.

Mercury Goes Down When Chicks are Hatching. (H. P. N.)—"In three different types of incubators that I have used, I have noticed that while the chicks are coming out the mercury in the thermometer falls one or two degrees, and this when the outside conditions are constant as to temperature of room, height of flame, and the distance of the disk or damper from the flue. I have therefore reasoned that the fall of mercury is due to evaporation of moisture from the bulb, and that the actual temperature inside is still as before. Now in view of the fact that we are always cautioned not to allow the temperature to drop at hatching time, is it well to let the regulator alone under these conditions when the mercury falls to 101°?"—I put the statement of conditions noted to Mr. P. R. Park, of the Cyphers Incubator Co. His reply coincided with Mr. N.'s conclusion as to the fact that the change in temperature pertained only to the bulb of the thermometer. His theory of the cause is that the bulb is repeatedly wet by a wet chick touching it, and that the fall is not permanent, but after the evaporation of the moisture on the bulb is complete the mercury again registers correctly until the bulb is wet again. He advises letting the regulator alone—the fault being with the register of heat, not with the heat.

Continuing Impregnation. (F. D. B.)—"Have bought a cock of different strain that I wish to breed from, and have placed him in a pen of hens, taking out the cocks that have run with them all spring. When can I safely set the eggs from these hens to get the new blood? In one pen of thirty Barred Plymouth Rock pullets I had one Barred Rock and one White Wyandotte cock. Have replaced the White Wyandotte with another Barred Plymouth Rock cock. How long will it take to eradicate the White Wyandotte blood from the flock?"—I have never personally seen or known of an instance where the influence of a male bird upon the progeny of hens was apparent two weeks after his removal and the introduction of another male. I think that in nine out of ten cases the influence of the first male is overcome within a week. We used to make cross matings late in the season, and from such matings saved eggs for hatching after ten days, and never had a thoroughbred chick come from such a mating when hens from regular breeding pens are used in it. Several times I saved and set all eggs from hens that had been accidentally served by males of another variety, they being still continued with the male with which they were regularly mated. In only one such case did chicks hatched show the parentage of the stranger, and in that case his influence continued only to the egg laid the fifth day after.

Duck Eggs Cooled Too Much. (G. D. S.)—"Last night I turned the duck eggs in an incubator, and forgot to shut the door, so it was open all night, and the temperature dropped probably to 75°, as the incubator was in a room off the kitchen. Do you think the eggs are spoiled? They have been in the incu-

ELM POULTRY YARDS.

Producing the finest in the land, winning the cream of the prizes in every show where we have exhibited, besides furnishing hundreds of our patrons with winners for every state in the union during the past eleven years.



"CYRUS,"

Champion of all White Rocks.

I also have over 3000 choice laying bred stock of above varieties, line bred since 1888 for great egg production from earliest maturing fully developed stock and best yearlings from which I shall sell eggs at \$2 per 12; \$8 per 100; or chicks, \$15 per 100, right from the incubators. Any variety shipped in safety within 24 hours travel. Elegant, descriptive catalogue free. 1500 Chicks for sale weekly, right from the incubators.

ELM POULTRY YARDS, Box R, **Hartford, Conn.**

Twentieth Century Stock and Methods. EXHIBITION MATINGS:

S. C. WHITE LEGHORNS,
16 superb matings of the Stay White Beauties.—My record at New York never has been equalled.

WHITE PLYMOUTH ROCKS,
8 grand matings of Rock Shaped Winners.—A clean sweep at Boston, in the largest class ever shown.

WHITE WYANDOTTES,
8 matings of the Short, Clumpy, Shapely Sort.—Winners at Boston, New York, Philadelphia, etc.

S. C. BLACK MINORCAS,
6 elegant matings of the Glossy Bronze Greens.—1st cockerel at Boston for 3 years.

BARRED PLYMOUTH ROCKS,
8 magnificent matings of the Barred Winners.—1st Pullet at Boston and Gold Special.

LIGHT BRAHMAS,
6 pens, the largest kind, with feathers on their toes, Phenomenal Birds.

\$3 per sit. (12); \$5 per 24; \$15 per 100.
SPECIAL CKL. MATINGS, \$5 per sit. (12).

EGGS

bator six days. How can a person tell when the germ is killed?"—The eggs are probably spoiled, though fair hatches of chicks which afterwards turned out well have been obtained after worse experiences than this seems to have been. Yet the chances are so much against a good hatch of good ducks from these eggs that were it my case, if I had eggs to refill the machine, I would throw these out and make a fresh start. If not prepared to do this, would continue the hatch and watch developments. It is difficult to give a description in words that will convey to one uninitiated the difference in appearances of eggs with live germs developing normally, and eggs containing dead germs. The dead eggs especially lack uniformity in appearance. Descriptions helped me so little that I feel it would be wasted time to attempt one. The best way to learn is to examine eggs, make

BREEDERS AND MARKETMEN.

OUR REQUESTS:—We make two requests of our Subscribers. One is when writing our Advertising patrons always mention **FARM-POULTRY**. Another is if you ask them questions, always inclose a stamp. If you observe both of these requests it will benefit you amazingly. It shows that you mean business. Remember, "Mollasses will catch more flies than vinegar," and those who observe it are served first.

A BIG BARGAIN. A \$5 bill pays for 26 eggs from my very best Barred Rock matings, or 39 from 2d best pens. Single sittings \$3 and \$2; incubator eggs \$6 per 100. My Rocks are particularly fine in wings, combs, and legs. Are right shape, standard size, and have narrow even line barring. Cockerel and pullet matings. A few more \$5 males. Also choice pullets. For all Barred Rock wants, address G. E. Fassett, Beverly, Mass.

BARNES & WOODRURY White Wyandottes, winners of 1st pen, 3d cock, 3d hen, 5d pullet, 2 specials at Boston's largest show, 1902. At Beverly, Mass., 1902, 14 regulars, 11 specials. Breeding stock for sale. Eggs, \$3 per sitting. Wenham, Mass.

BARRED PLYMOUTH Rocks and White Wyandottes. Over fifty prizes to our record the past six years at New York, Orange, and Washington. Eggs rest of season at one-fifth value, from absolutely stay White Wyandottes and clear, narrow Barred Rocks, \$1 per 13. Pedigreed Collie pups from imported stock, \$5 each. Wm. H. Cyphers, Box 551, Washington, N. J.

BUFF WYANDOTTES, buff to the skin, great layers. At Beverly won 1st cock, 3d cockerel, 4th, 5th hen. Eggs \$3 per 13; \$5 per 26. Stock in fall. Chas. Robinson, Marblehead, Mass.

EGGS FOR HATCHING. A few eggs from prize birds as follows: Partridge Wyandottes, \$3 per 13; Silver Laced Wyandottes, \$2.50 per 13; White Wyandottes, Albino strain, \$2 per 13; Houdans, \$2.50 per 13; correspondence invited. Pine Ridge Poultry Yards, P. O. Box 159, Waban, Mass.

KNIGHT'S BUFF WYANDOTTE eggs are 15 for \$2. Now is the time to set them. Remember I breed some Boston winners, and do not have to buy them. Send 50c and get my receipt for keeping eggs one year, so you can hardly tell them from fresh ones. G. A. Knight, Peabody, Mass.

ROSE C. B. Leghorn specialty. Also S. C. Blacks, Eggs from winners scoring 91 to 96, \$1.50 per 15; \$2.50 per 30; from free range flocks \$1 per 15; \$4.50 per 100. My Rose Combs are winners in egg production at state experiment station, Circular free. J. L. Randolph, Box A, Cutler, Ohio.

SEND to Trask's Plymouth Rock Farm for illustrated circular: It is free, and tells all about our Barred, White and Buff P. Rocks. Eggs from winners only \$2 per 13; 3 sittings, \$5. E. F. Trask, Beverly, Mass.

SILVER Wyandottes, large, open laced, typical, practical. Every bird a winner the last five years. Won 5 firsts at Boston, 1901. If you want this kind, write John C. Jedrey, Box A, Danvers, Mass. P. H. Gossard, Mo. Valley, Ia.

S. C. RHODE Island Reds. Sil. Laced Wyandottes, and S. S. Hamburgs. Winners at Peabody, Amesbury, Haverhill, Beverly, Lynn and Boston. Eggs \$1.50 per sitting; 2 sittings, \$2.50. Poor hatches duplicated at half price. Send for illus. cir. It tells all about them and shows my winning photo. from life. G. A. Addison, Wenham, Mass.

WHITE Ply. Rocks, \$1 stock, win wherever shown. If you want a winner or good layer, try my stock. Eggs \$2 per 15. Special price per 100. L. Cuck, East Saugus, Mass.

WHITE WYANDOTTES, Triumph strain, 100 large vigorous cockerels, 150 pullets, all bred from extra layers of large dark brown eggs. Also a fine lot of fancy stock, dead white and all right for any show. Prices right. Write at once. W. E. Mack, W. Woodstock, Vt.

WHITE and Buff Wyandottes. Bred true to name and color. Prize winning stock (Boston and elsewhere). Eggs, \$3 per 13; \$5, 26. Send for descriptive circular. See display ad. F. W. Howes, 14 Main St., Amesbury, Mass.

BUYERS' DIRECTORY.

CLASSIFIED ADVERTISEMENTS only will be printed under this heading; no advertisement admitted containing less than TWO lines; no display other than the initial word or name allowed; no limit to length of ad.; an advertiser can divide his copy and put the matter under as many headings as he wishes; all space used except classified headlines, to be charged at a uniform price of 25 cents per line each and every insertion; no less price per line for any number of lines or times inserted; copy will be changed often as desired; about seven ordinary words will make a line; all parts of lines charged as one full line; the headlines will be arranged alphabetically, as in a "business directory."

ANCONAS.

ANCONAS, beautiful, hardy, most prolific producers of largest size white eggs. My strain from Branthover's imported stock, line bred for 4 years. Satis. guarant. Eggs \$1.50. W. Axford, Oxford, N. J.

BANTAMS.

GOLDEN and Silver Sebright; Buff and White Cochins Bantams. W. W. Clough, Medway, Mass.

BEES.

ITALIAN bees; strong colonies. Movable hives. Price reasonable. F. G. Hernan, Eaglewood, N. J.

BRAHMAS.

MY LIGHT BRAHMAS won at Nashua, Beverly, and Boston this year. I have two pens, which include all my prize winners, and will sell their eggs at \$2 per sit. Walter H. Brown, Danvers, Mass.

BREEDING STOCK.

LOOKOUT Hill Poultry Farm, Mills, Mass. Cockerels, pairs and trios of R. f. Reds, Mottled Anconas; Barred, White and Buff Plymouth Rocks; White and Buff Wyandottes; S. C. Brown and Buff Leghorns; R. C. Brown Leghorns, Light Brahmas, and Buff Orpingtons. Prices reasonable. Eggs \$1 per 13; \$5 per 100. Send for catalogue.

FAVEROLLES and Partridge Wyand. Rose and S. C. Br. Legz. Chicago, Cleveland and Pittsburg winners; cir. free. Fred Moore, Jr., Youngstown, O.

COCHINS.

BUFF Cochins eggs, Oakland Farm strain, \$1 per 15. C. J. L. Ware, So. Keene, N. H.
PARTRIDGE Cochins, Stock. Eggs 15 for \$1. Pequot Poultry Farm, Mystic, Conn.

DUCKS.

BLUE SWEDISH and Indian Runner ducks. First prize winners at Boston, Malden, Lewiston, Manchester, and Lynn. Eggs for hatching from this high grade stock, \$3 per sitting. 2c. stamp for catalogue B. Maplewood Poultry Yards, Malden, Mass.

MAMMOTH deep keeled first prize Pekins. Second to none. Eggs, \$1.50 per doz; \$8 per 100. Book orders early. H. G. Worth, Nantucket, Mass.

MAMMOTH Pekin duck eggs \$1 per 11, \$6 per 100. Nausett Poultry Farm, East Orleans, Mass.

IMPERIAL Pekin duck eggs for hatching. Sitting of 11 eggs, \$1; lots of 50 or 100, 6c. each. W. H. Hathaway, Ashlawn, Assonet, Mass.

EGGS.

DON'T forget to write me when you want choice eggs for hatching, from S. C. White Leghorns, Buff P. Rocks, and Bronze turkeys. Guaranteed 4 fertile. T. D. Scheldel, Woodstock, N. H.

EGGS for hatching, \$1 per 15; Buff and White P. Rocks; Buff and White Wyandottes; and S. C. Brown Leghorns. My show record proves that I have good stock as there is in the country. James H. Corwith, Water Mill, N. H. Co., N. Y.

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EGGS from our R. f. Reds, White Wyandottes and S. C. W. Leghorns, 1 per 13. Nausett Poultry Farm, East Orleans, Mass.

WHITE Wyandottes, Wh. P. Rocks, Eggs \$2 per 15. S. M. Boardman, Hyde Park, Mass.

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PRACTICAL breeds that win and lay, at reasonable price. Buff and Partridge Rocks, R. f. S. and Pea Comb R. f. Reds, White Leghorns. Eggs \$2 for 13; \$5 for 40. John Lowe, Box F, Swansea, Mass.

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CHOICE Buff Orpingtons, Cook's strain, England. Partridge Wyandotte, Beaver Hill, Partridge Plymouth Rocks, Crocker. Eggs for May and June \$1.50, 13; \$2.50, 26. Arthur Waite, Rockville, Mass.

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S. C. BUFF and White Leghorns, Arnold and Wilcox strains. This stock is as fine as can be produced. Pens headed by prize winners. Eggs \$1 per 13; \$2 per 30; \$5 per 100. Pine Grove Poultry Yards, Jay, Essex Co., N. Y.

A FEW selected large size B. L. cockerels, weight 5 to 6 lbs., for utility and general crossing. Lots of life and vigor, \$2.50 to \$3 each. Grove Hill Poultry Yards, Waltham, Mass.

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MY Buff Leghorns have won at Haverhill, Beverly, Lewiston, Boston. Eggs \$2 per sit.; 2d grade, \$1. E. T. Perkins, Kennebunkport, Me.

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notes of appearances, mark eggs so that they can be identified, then after the hatch examine the eggs which failed to hatch first through the tester, then after breaking. The most conspicuous marks of dead germs are the dark spots, caused by clotting of the blood of the forming heart and arteries, (this is seen in eggs in which the germ dies early. In dark shelled eggs it may escape notice), and the disintegration of the contents of the egg as indicated by the fluidity of its contents. At this latter stage the air cell is not sharply defined and permanent as in a live egg, but whichever way the egg is turned the contents present a level surface, while the line between them and the air space is shaded.

Spraying Trees in Poultry Yards. (W. T. W.)—Will you tell us something about spraying fruit trees in poultry yards? An acquaintance attributes the loss of several fancy fowls to winter spraying of his trees underneath which was a litter of straw in which grain was thrown. I have a nice lot of young Leghorns in a small peach orchard. The trees are small, and ground to width of four feet on each side kept loose and mellow. The balance is greensward, and it will be impossible to spray the trees without some getting on the grass. Is it safe to use a sprayer and especially poisonous formulas on trees in poultry yards?—Four years ago I sprayed all the trees in a small apple orchard in which I reared my Buff Leghorns that year. Spraying was done in May, when chicks were on the ground. Paris green in water was used, about as it would be for potato bugs. Care was taken to get as little as possible on the grass, but there was enough there so that I suppose had a chick confined its grazing to certain areas just under the trees there was a possibility of its getting enough to poison it. At no time did any symptoms of trouble appear among the chicks. In the case Mr. W. reports there was another and more likely cause of poisoning. The straw lying out under the trees, alternately wet and dry, probably became musty. If so it would not be strange if some fowls compelled to scratch in it were sickened and died.

Feather Eating Hens.—(D. S. P.)—Feather pulling can be stopped by the use of a poultry bit made especially for that purpose, a little wire device which fits on the bill, and does not interfere with the fowl picking up things that are loose, but prevents it securing a hold on a feather strong enough to pull it out. Such bits can be purchased of almost any house dealing extensively in poultry supplies. Unless the chickens are very valuable it is hardly worth while to go to the expense of purchasing these bits. In most cases where many hens in a flock are stripped bare it will be found that a few hens—perhaps only one, is doing the mischief. The hen or hens which have not been picked are apt to be the culprits. The only way to proceed intelligently in cases of this kind is to ascertain just what are the conditions. If only one or two hens are at fault the trouble is quickly corrected by killing them. If the vice is general, other methods must be tried. The most essential thing in these cases, as in cases of egg eating, is to keep the hens busy. Remember the old saying, "Satan finds some mischief still for idle hands to do." I don't know that Satan is interested in poultry, but idle hens certainly get into all sorts of vicious habits, and the important thing in correcting such vices is to give the hens a reasonable amount of freedom, and to make provision for natural exercise. Sometime ago I mentioned a case where feather eating—just begun—was checked by giving the fowls salt, the salt being well rubbed in to pieces of bologna sausage. I don't know whether this would be effective in confirmed cases, but it is worth trying.

Crippled Chicks. (A. E. A.)—"I have just bought a 120-egg Cyphers incubator, ran it very carefully, and have hatched 82 chicks from 104 fertile eggs, (not a bad hatch for an amateur certainly); but six of them were crippled so I had to kill them, and that is what I want information about. Why were they crippled? Does the reason lie in the eggs, the incubator, or my running of the machine? The eggs were cooled and turned carefully, and I know they were never chilled or overbeated. The other 76 chickens are as bright and strong as I could ask."—Not



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ENGLISH Ring Neck pheasant eggs, 90 per cent
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cess I had with your eggs. Hatched fifty-seven, and
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one admires them. When I want more eggs you
shall have my order. Respectfully, Grace Day." Eggs
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Can ship eggs immediately. W. C. Smith & Son,
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A. E. CUMMINGS, Hudson, N. H., seven years
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ALLEN'S Single Comb R. I. Reds take the lead.
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are not absolutely pleased with any dealings you have
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knowing in what way or ways these chicks were crippled, I am not in a position to guess as to the cause in this particular case, but with conditions as stated, would assume on general principles that the trouble was probably in the eggs, and thus primarily in the stock that laid the eggs. The causes of such things are mostly too obscure to be traced, though there are cases where the deformity of a certain section is hereditary, a fault which is inconsiderable in the parent or parents becoming serious in some of their offspring. It is sometimes assumed by persons operating incubators that cripples come from faults in operation; but while this appears to be a cause of crippled and deformed chicks, just as it is of weak chicks, the fact that a considerable percentage of cripples is sometimes produced when hatching is done with hens, and when there is no reason to suspect anything irregular in incubation, makes it necessary to admit that the fault is sometimes in the stock. The matter is one which it is difficult for one person to investigate, because the occurrence of crippled chicks in numbers sufficient to justify connecting them with a suggested cause of such trouble in the breeding stock or in the conditions to which it is subjected, is so rare that one might wait a long time for subjects. From one of my breeding pens this year I have had an unusual proportion of crippled chicks, and I am trying to find out something about them, though I regret that I have not the time or the room to make such experiments with them as would be necessary to determine with any approach to certainty, which of the two causes which are suggested is the true one: both the pullets and the cockerel in this pen are from stocks with which I am not personally familiar—that is, I know them only by reputation and from seeing the stock in other yards. The pullets in this pen lay more irregularly formed eggs, and drop more eggs from the roosts than do the pullets in either the laying pens containing three times as many. They are in good condition, good appetite, and laying best of any. Of course, none but the well formed eggs are set, but I have killed one wry necked or partially paralyzed—unable to use legs—chick in each brood from this pen, and several chicks trampled in the nests I thought had been trampled because they were unable to handle themselves. The fault may be with the male, though I think it is in the hens. The only observation I am in a position to make at present is as to results from a few sittings of eggs from this male mated with another lot of females which have not laid so well, but lay better eggs. I haven't things arranged so that I can make another mating for those hens as late in the season as this. We could get more out of this subject if readers of the paper who have had opportunities to look into the matter and draw some conclusions would send them in. I think we could thus get a great deal of information as to causes of crippled, deformed, and weak chicks resulting from improper incubation, and might get something useful in regard to other causes of such troubles.

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Always Fresh and Reliable, Thoroughly Tested and Guaranteed.

The well known seed firm of J. J. H. Gregory & Son, of Marblehead, Mass., have had a business career of nearly half a century. During this time they have won a reputation in every village and town of the land, and today Gregory's seeds are famous for their freshness, purity, and reliability. Their seeds are all thoroughly tested every season, and those not up to the standard are destroyed. In buying Gregory's seeds it is satisfactory to know you are getting guaranteed seeds—seeds that will surely grow—and they come directly from the grower to the planter. Farmers and gardeners who want to be sure of their seeds should send for their catalogue. It tells all about good seeds and their guarantee. It is sent free to those who write for it, and should be read by every one who plants.

The "dry" facts about an article are not dry to the man who contemplates paying out money for the purchase of the article.—*Printers' Ink.*

VALLEY FARM IS IN CONN.
SIMSBURY, HARTFORD CO.

The Superior Council of Public Hygiene of France.

The Minister of Public Works having submitted to this body a series of questions concerning the advisability of substituting Zinc White for white lead in all Government works, the Council formulated the following conclusions:

"The substitution of paints based on oxide of zinc for white lead paints is entirely desirable from the point of view of hygiene."

"This substitution appears to be feasible in the great majority of painting work, and consequently the state executives would set a salutary example and would perform a very useful service to hygiene in ordering, wherever it may be possible, the substitution of zinc white for white lead in work executed on account of the administration."

The Consulting Committee of Hygiene and Utility of France, on March 20th, 1901, issued an edict that the use of white lead should be interdicted, an edict with which all the Government Departments and most of the Municipalities have complied.

Translation by STANTON DUDLEY.

NEWS NOTES.

The Plow City Poultry and Pet Stock Association will hold its third annual show at Moline, Ill., Nov. 25—Dec. 2, 1902. Thos. F. Rigg, judge; Oscar Hogberg, Sec'y.

"Incubation" is the special study for this month in the course of the American Poultry Institute, Law Exchange Building, Buffalo, N. Y. Their prospectus will be sent for the asking.

The White Leghorn Poultry Yards, Waterville, N. Y., have just issued a handsome catalogue descriptive of their plant and stock, which is exceptionally well illustrated, and is, in fact, in every way an attractive bit of advertising and workmanship.

We are frequently asked by parties living near Boston, where they can buy young chickens. In a circular just received we notice that Mr. R. Woodman, of Malden, Mass., sells young chickens and ducks of a number of different varieties, and has them for sale at ages ranging from a few days to two months.

The Cornell Incubator Co., 34 Merchants Row, Boston, are agents for the Automatic Poultry Feeder and Exerciser, made by the Automatic Feeder Co., Genoa, N. Y. Write them for circular, also for supplement to Cornell Incubator Catalogue, describing recent improvements in Cornell Incubators.

The Pittsburgh Fanciers' Club have decided on Feb. 22—28, 1903, as dates for their sixth annual exhibition, and have engaged the following judges:—Theo. Hewes, of Indianapolis, Ind.; David A. Nicols, of Shelton, Conn.; Geo. Burgott, of Lawton Station, N. Y., for the poultry, and Geo. Ewald, of Cincinnati, Ohio, for the pigeons. The pet stock judge has not been decided on as yet.

The Clinton County Poultry and Pet Stock Association at its third annual meeting elected the following officers for the ensuing year:—President—Ed. N. Maish; vice-president—James Fudge; secretary—John K. Pence; treasurer—John W. Ball; executive committee, D. F. Maish, J. T. Holloway, and Ira Thompson. The date of the next show is January 5—10, 1903, with F. M. Campbell, of Darlington, Ind., as judge.

Western Poultry News, Lincoln, Neb., is conducting a very interesting contest among its subscribers as to typical shape or symmetry. Can you tell from a drawing of a fowl, the head and plumage being omitted, to what variety it belongs? This is the question *Poultry News* is asking, and offering prizes in cash to those who can. Send for sample copy and full particulars, which are given in their May issue. Address *Western Poultry News*, Lincoln, Neb.

On May 8th we had a pleasant call from Mr. A. G. Goodacre, formerly of Grand Pre, N. S. Mr. Goodacre has closed out his business in Nova Scotia, and will locate in the

Man's Mission on Earth

Medical Book Free.

"Know Thyself," a book for men only, regular price 50 cents, will be sent free (sealed postpaid) to any male reader of this paper, 6 cents for postage. Address the **Peabody Medical Institute**, 4 Bulfinch street, Boston, Mass., established in 1860, the oldest and best in America. Write to-day for free book, "The Key to Health and Happiness."

EDITOR'S NOTE. For 40 years the Peabody Medical Institute has been a fixed fact, and it will remain so. It is as standard as American Gold.

The Peabody Medical Institute has many imitators, but no equals.—*Boston Herald.*

United States; he had not definitely decided where, having several places under consideration. Mr. Goodacre left on our desk "a bit of Nova Scotia" in the shape of a fragrant bunch of Mayflowers, for which our thanks. The contents of boxes which come to our desk from poultrymen are rarely fragrant, and on that account Mr. G.'s bouquet is the more appreciated.

At the annual election of the American White Plymouth Rock club the following officers were elected for the year:—President, C. G. Hind, Alameda, Calif.; vice-president, E. B. Eddy, Chicago, Ill.; sec'y-treas., J. Fred Crangle, Simsbury, Conn.; executive committee—Frank Heck, W. R. Pollock, S. M. Williams, W. A. Greene, D. T. Heinrich, J. A. Grover; advisory board—W. J. Lance, J. L. Smith, Mrs. Mattie Webster, M. M. Johnson, Lewis Harrington, G. H. Hilde-

brandt, Jr., Cris. C. Burrough, C. L. Stuart, Wm. F. Taylor, Dr. J. L. G. Gilmore, E. M. Ferguson, E. B. Oumbundro, L. J. Laverly, Dr. W. E. Bartlett, Alex. McD. Drummond.

One of the most interesting catalogues we have seen is that just out for Pollard's Poultry Farm at South Attleboro, Mass. The illustrations are good, but the special quality is in the reading matter, which is in Geo. H. Pollard's most characteristic vein. Looking through the booklet it occurred to us that the column or two of crisp things from it would go well under the heading, "Pollard Philosophy," but on second thoughts we conclude that the catalogue is too good a place to get pills to be thus worked out in our effort. So when readers hereafter run across something credited to Pollard's Catalogue they may know just where it came from.



Easy Harness

All harness, old or new, is made pliable and easy—will look better and wear longer—by the use of

Eureka Harness Oil

The finest preservative for leather ever discovered. Saves many times its cost by improved appearances and in the cost of repairs. Sold everywhere in cans—all sizes. Made by STANDARD OIL CO.

S. C. White Leghorns, White Plymouth Rocks, White Wyandottes, Pekin Ducks.

EGGS FROM PRIZE MATINGS, \$2 for 12; \$5 for 30. Pekin Duck eggs \$2 for 12; \$3 for 25; \$5 for 50; \$8 for 100.

ALFRED P. SMALLEY, CLAYTON, NEW JERSEY.



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YOU CAN DO AS WELL IF YOU TRY.

A. M. Young, of Canada, Mich., says—"I sold 75 dozen in four days." Territory going fast. Write at once for terms and secure your country.

IDEAL NEST EGG CO., 106 Lake Ave., Grand Rapids, Mich.

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213-Egg Strain WHITE WYANDOTTES.

Prize winners and heavy layers combined. EGGS TO HATCH OUR SPECIALTY. 15 eggs \$2; 45 eggs \$5; 100 eggs \$8. Old customers order repeatedly. This fact speaks volumes. Stock for sale. Write us for testimonial circular and show record.

F. P. PULSIFER & CO., Natick, Mass.



INCUBATOR is Self-Regulating and Ventilating.

Get an Incubator that prevents the great mortality of germs and chicks while under incubation, and a Brooder that will raise the chicks. Our Hot Water System for large brood houses is the greatest success of the age. A walled up boiler is used to heat a brood house 200 feet long, with little fuel. The only brooding system ever invented capable of brooding chicks successfully. The book entitled, "The Poultryman's Eye Opener," all interested inquire. Price 25c.

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MANHEIM, PA.

RUBEROID-ROOFING.

(Trade Mark Registered).

Ruberoid is the best roofing and siding for poultry houses, barns, etc., ever used, because it will stand harder wear than any other, and because it is so economical. Will not melt, rot, or tear. Will not catch fire from sparks. Water-proof and air-tight. Keeps the houses dry and comfortable. Prevents draughts and dampness. Easily laid. Does not contaminate rain-water. Write for Booklet L.

THE STANDARD PAINT COMPANY,
102 William St., NEW YORK.

HAVEN'T SOLD all my White Rocks yet. They're going. H. D. Hopkins, Montpelier, Vt.

PINE ROCK strain Light Brahmas. Eggs 20 for \$1.00. **PINE ROCK POULTRY RANCH**, Clinton Hollow, N. Y. N. A. Taylor, Proprietor.

WHITE Wyandottes exclusively (Hawkins strain). Eggs for hatching \$1.00 per 13, from snow-white stock. Louis Heller, Bridgeton, N. J.

FORMULA for Egg Producer, Lice Killer, White-wash, etc. Send 25 cents for same to C. P. FUNCHARD, Framingham, Mass.

INCUBATOR EGGS from pure bred White Wyandottes of the best strains. Choice, farm raised stock. \$3.00 per 100; \$2.00 per 50. Address, S. DEAN, Oak Hill, N. Y.

WHITE Wyandotte eggs—\$1 per sitting. Three, four and five cts. each by the 100. Directions given for making winter layers. E. T. Damon, Lancaster, Mass.

\$2.00 Bowker's Animal Meal, 25 Eclipse Leg Hairs. New circular. Sumner Johnson, Portland, Me.

PRIZE STOCK and **EGGS** at farmers' prices. All Standard varieties, bred for utility and points. Fine catalogue free. J. D. Souder, Telford, Pa.

FOR SALE. Ten-Acre Poultry Farm, two dwellings, 300 laying hens, stock and fixtures, cheap for cash. J. F. CLARKE, West Southport, Maine.

ROSE Comb White and Brown, Single Comb White Leghorns, White Klondikes, Wh. Indian Game Bantams. Eggs 75c. per 15. Some fine cockerels for sale. Mrs. H. Valentine, Cambridge, N. Y.

PURE BRED R. I. REDS. Can furnish sittings of 15 eggs for \$2; two sittings for \$2.25. Your orders solicited. Also White Leghorns at same prices. J. M. BASOM, Cooville, Ohio.

DON'T SET HENS the same old way when our new plan beats it 10 times. 100 Egg Hatcher (Cuts Only \$2, Over \$4.00 in use. 10,000 tests. 5,000 agents wanted for 1902, either set. Pleasant work. Big profits. Catalog and 10c Egg Formula FREE if you write today. Natural Hen Incubator Co., B. S. Columbus, Neb.

ROSE Comb Brown Leghorns, July 212-egg strain. Single Comb White Leghorns just as good, and large White Wyandottes, Duston strain. 15 eggs \$1. Miss Ella L. Waltman, Laddsbury, Pa.

IDEAL BROODERS. Indoor, Outdoor, Sectional. \$5.00 up. Central heat. Positive supply of warmed fresh air under circular cover. IDEAL BROODER CO., East Mansfield, Mass.

WHITE WYANDOTTES. 191 egg strain. Eggs for hatching. \$2.00 for 50; \$4.00 for 100. Satisfaction guaranteed. E. O. SCHAFF, R. D. 3, Sewell, N. J.

S. C. RHODE ISLAND REDS, Barred Plymouth Rocks, S. C. Brown Leghorns, Light Brahmas. Eggs \$1.00 per 13. J. ARTHUR RADDIN, Cliftondale, Mass.

MY BROWN LEGHORNS are great layers. Eggs for hatching from pure bred, farm raised stock. Prices reasonable. Write. Egg Record free. LEE SHORT, Lower Cabot, Vt.

WHITE P. ROCKS. Heavy laying strain. Some good yearling hens; also sixty pullets. July 1st hatch, cheap if taken at once. Eggs for hatching in season, \$2 per 15; \$3 per 30. W. H. JONES, Jr., East Sandwich, Mass.

90 Varieties Choice Poultry. Eggs, Pigeons and Belgian Hares. Incubator Eggs \$40.00 per 1,000. Always Choice Stock to offer. All described in our colored descriptive 60-page book, and mailed for 10 cents. J. A. BERGEY, Telford, Pa.

Kills 'EM ALL. All kinds. All it don't touch. Black Diamond Lice Powder. 16-oz. box. (by mail) 40c.; six (by ex.) \$1. Supplies. Books, etc. BIRIE FARM (Light Brahma Home), Crittenden, N. Y.

FREEMAN'S WHITE WYANDOTTES are bred to lay eggs in winter. Average of 52 in Dec., Jan., Feb. If you want lots of eggs next winter don't fail to have some of these, at \$1.25 for 15. GEO. H. FREEMAN, Hallowell, Maine.

1890. **VAUGHN'S** 1902.

Wh. Wyandottes and R. I. Reds are bred to lay and good enough to win. Eggs from our best Winter layers, \$1 for 15; \$2 for 50; \$5 per 100. Also bred Buff Wyandottes and Light Brahmas. Egg orders booked now. Illustrated circular free. A few Buff and Red cockerels \$2 each. C. E. VAUGHN, LYONS HILL POULTRY FARM, Athol Centre, Mass.

BUFF AND WHITE PLY. ROCKS
BUFF AND WH. WYANDOTTES
Prolific layers of dark brown eggs. Up to Standard weight and bred to win. Eggs from first-class stock at honest prices. \$1.50 for 13; 50 for \$4.50.
HILLSIDE POULTRY FARM,
Wickford, R. I.

White Wyandottes

Bred for Eggs and Meat.

They are plump, hardy, vigorous birds, and heavy winter layers. The eggs hatch and the chicks live and grow. We use scratching sheds and get fertile winter eggs. Eggs \$1.00 per 15; \$1.25 per 30; \$5.50 per 100. Can be called for if preferred.

I. J. STRINGHAM,

105 Park Place, New York, or Glen Cove, L. I.

BEE KEEPING goes well with poultry culture. A colony of Italian Bees, and complete hive for \$7.50. Catalogue Free.

BEE SMOKERS

and bee supplies of every kind is our business. This Cornell Smoker only 75c. 3 for \$2.25; postage 25 cts. ea. extra. Our A. B. C. of Bee Culture, 500 pages, 406 illustrations. Price, \$1.20, is the best thing ever published on the subject. Circulars and sample copy of *Glenn's* magazine in Bee Culture—sent monthly magazine mailed free if you mention this paper.

THE A. I. ROOT COMPANY Medina O.

A Testimonial to Mr. Philander Williams.

Upon the retirement of Mr. Williams from the presidency of the National Bantam Association, the members voted to present him with a testimonial. This work has been successfully engrossed by Messrs. Ames & Rollinson, of New York, bound in ox blood leather, and lined with watered satin. The text is done in water colors, in an illuminated style, the whole work being an attempt to honor this gentleman fancier.

The testimonial reads as follows:—
"The members of the National Bantam Association at the ninth annual meeting held in Madison Square Garden, in connection with the thirteenth annual exhibition of the New York Poultry and Pigeon Association, passed a resolution authorizing that a suitable testimonial be drafted and presented to president Williams in recognition of his valuable services during the past seven years."

Philander Williams: It is with the greatest satisfaction that we congratulate you upon the successful administration of the office of president of this body of bantam fanciers. It was because of your urgent request that we reluctantly accepted your resignation.

To you the National Bantam Association is indebted for much of the success, prosperity, and influence which have attended bantam interests since the inception of the organization in 1893. By your earnest personal devotion and sterling reputation among poultry fanciers you have brought together, in harmonious accord, one of the strongest specialty clubs in America. That you may continue to advise and inspire us is the hearty desire of the members of the National Bantam Association."

(Signed) CHARLES T. GORMAN, Pres.
A. A. PARKER, Treas.
E. LATHAM, Sec'y.

Jan. 16, 1902.

St. Louis Show.

Readers of this paper will be interested in the announcement that the St. Louis Fanciers' Association is to give its eighth exhibition of poultry, pigeons, and pet stock in that city, beginning December 29, 1902, and continuing until and including January 8, 1903.

These exhibitions in the past have brought together the very best of breeders in the country, and there is every reason to look forward to the coming one as a supreme effort on the part of the management to eclipse their splendid record. The eyes of the entire world are turned to the World's Fair city, and happenings there in the poultry way, as in all other lines of legitimate pursuits, will attract widespread attention. To take part in such an exhibition will redound to the credit and standing of its participants; to achieve success there will mean fame and fortune as well. This timely announcement will enable all lovers of the feathered tribe to amply perfect arrangements to be present with their birds.

The annual meeting of the association was held in St. Louis, on March 7th, last, the result of the election of officers was as follows: President—Henry Steinmesch; treasurer—R. C. H. Hallock; secretary—John A. Francisco; poultry judge—Sharp Butterfield.

Advantage of a Cold Climate.

Our colder climates have their disadvantages, but also their advantages, and at our recent visit to the poultry show at Winnipeg, we came to the conclusion that the climate of that section of country must have a beneficial effect upon the plumage of parti-colored birds, and solid black birds, as the black points seemed to have a richness and brilliancy of color that is lacking in the birds of warmer climates.

The luster of some black varieties was something fine, in fact there seemed to be a luster to the plumage of all varieties in that climate that is different from that of the birds of warmer localities; but while this is true of the color of plumage, there is also something in the soil that slightly affects the color of shanks, many birds failing somewhat in color of legs.

But upon the whole we believe the colder climates tend to more brilliant plumage and harder constitutions than the warmer climates, and the fanciers of the great northwest are in as favorable a location for the production of fine quality as could be found.—*Poultry Herald.*



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FREE.—Our money-saver hook, "Preventive Treatment" Poultry Diseases. A postal card will bring it. Send now.



LEADING LEGHORNS AT BOSTON'S BIG ONE.

FIRST COCK	FIRST HEN	FIRST COCKEREL	FIRST PULLET	FIRST PEN
All cash specials and THE GROVE HILL CUP for best display. This on top of my brilliant victory at Philadelphia, when my S. C. W. Leghorns took 1st, 4th cock; 1st, 2d, 5th hen; 2d, 5th cockerel; 3d, 5th pullet, and the AMERICAN LEGHORN CLUB TROPHY for best display.				
White Leghorn breeders will make no mistake this season in buying my eggs at \$3 per 13; \$5 per 26.				
WOODLAWN POULTRY YARDS, Waltham, Mass.				

CHAS. J. FOGG, Prop.

200-Egg Incubator

\$12.80

The wonderful simplicity of the **Wooden Hen** and the greatly increased production forced by its immense sales, makes it possible to offer this perfect hatcher for \$12.80. Guaranteed to hatch as large a percentage of eggs as any other hatcher at any price. Self-regulating and fully guaranteed. Send for the free illustrated catalogue.

CEO. H. STAHL, Quincy, Ill.



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WAS AWARDED TO
MILLVILLE POULTRY FARM'S BUFF PLYMOUTH ROCKS, AT BOSTON, 1902.
\$100 CHALLENGE CUP FOR BEST MALE.

CLUB CUP for best cock, hen, cockerel and pullet. **GOLD SPECIAL** for cock and 2 hens, and numerous other specials went on our birds. 1st cock; 4th hen; 2d and 5th cockerel and 3d pullet in a class of the 12 best Buffs ever cooped, combined with our Phila., Pan-American and New York winnings, place our Buffs far in the lead. Our Barred P. Rocks, White and Buff 'Dottes, and Pekin Ducks have a record equally as good. Send for our free illustrated catalogue and mating list. Eggs from our winners \$3 per 13; \$5 per 26.

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M. F. DELANO, Pres.

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LEGHORNS S. C. } EGGS \$5.00 per 100. Good ones.
PLY. ROCKS } 7.50 per 100. Sp'l pens.
WYANDOTTES } 3.00 a setting. Exhibition
JAPANESE SILKIES \$7 a pair; \$10 a trio. No eggs.

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OLD HOMESTEAD BROODER

THE OLD HOMESTEAD BROODER

Is the only one that is different from all others. It will care for its rated number of chicks until 3 months old. 2 sizes—50 and 100 chicks. Catalogue free.

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Intelligent Feeding OF POULTRY

Always returns a profit. Improper feeding results in losses and disappointment. Our feed is not a stimulant or condiment, but a complete food. It is sold by the leading dealers in every state. It is the most economical feed you can use. Our booklet,

The SCIENCE OF POULTRY FEEDING

Describes it fully, and will be sent free on request. We are on the eve of a revolution in methods. The Cramming Machine is here to stay. The day of grass fed poultry is past. The demand for fattened finished poultry is at hand. We have perfected the best, simplest, and cheapest **CRAMMING MACHINE** for forced feeding in the world. A woman or child can operate it. Also the only perfect fattening meal for machine or trough feeding, known as

Grenadier Meal.

If you would know what is now being done in this business, and the details of the process, write for our Booklet, **POULTRY FATTENING PERFECTED**, and get posted.

THE MIDLAND POULTRY FOOD CO.,
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No. 391 Buggy. Price, \$59.00. As good as sells for \$25.00 more.

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We ship anywhere for examination but ship nowhere for sale. You are out nothing if not satisfied. We make 195 styles of vehicles and 65 styles of harness. Our prices represent the cost of material and making, plus one profit. Our large free catalogue shows complete line. Send for it.



No. 740 Open Stanhope. Has 1/2 inch Kelly rubber tires. Price, \$82. As good as sells for \$50 more.

Elkhart Carriage & Harness Manufacturing Co., Elkhart, Ind.

LEGHORNS. Single and Rose Comb White, Single Comb Brown and Buff. 15 eggs for 75 cents; 105 for \$4. Mr. and Mrs. S. Rider, Maryland, Otsego Co., N. Y.

Black Diamond Lice Powder kills 'em all—even those it don't reach. Sample pound (by mail) 40c; six (by ex.) \$2.00. Erie Poultry Farm, Box 168, Crittenden, N. Y.

SILVER LEAF LEGHORN YARDS. The home of many prize-winning S. C. Brown Leghorns. Are bred for great egg production and exhibition stock. Eggs from best pens, \$2.00 per 15. W. H. & F. S. LITTLE, North Montpelier, Vt.

EGGS FOR HATCHING from strong, vigorous White Wyandottes, Light Brahmas, S. C. White Leghorns, \$1.50 per 13; \$3.00 per 30. Stock for sale. Geo. W. DUNNICAN, 431 Harrison St., Passaic, N. J.

HIGH CLASS LIGHT BRAHMAS. Eggs from our best pens of heavy layers (trap nests used for three years) \$1 per 15; \$2.50 per 50; \$4.50 per 100; \$8.50 per 200. PHILIP H. GEORGE, Box B, Braidwood, Illinois.

SHADY LAWN FARM fills orders for incubator eggs promptly, from Barred Plymouth Rocks, Rhode Island Reds, S. C. White Leghorns. \$1 per 100; \$35 per 1,000.

J. O. GABRIEL, Shelly, Pa.

Evergreen Poultry Farm.

White Wyandottes, R. and S. C. R. I. Reds. Prolific layers of brown eggs. Eggs \$2 per 13; \$3.50 per 30. Correspondence solicited. Satisfaction guaranteed. Circulars free. A. H. Germond, Stanfordsville, N. Y.

White Wyandottes

Can furnish you with eggs for hatching from choice stock (Dunston strain) at \$1.00 per 15. Fertility guaranteed. GEO. L. HOYT, South Salem, N. Y.

ADVICE TO MOTHERS

Mrs. Winslow's Soothing Syrup should always be used for Children Teething. It soothes the child, softens the gums, allays all pain, cures wind colic, and is the best remedy for Diarrhoea. Twenty-five cents a bottle.

Barred Plymouth Rocks

Thompson strain. R. C. B. Leghorns, Benedict and Knip strain. Eggs in season, \$1 per 15; \$2 for 35. Some very fine Leghorn cockerels, \$1 to \$3 each. RIVERSIDE POULTRY FARM, Box 81, An Sable Forks, N. Y.

S. C. WHITE LEGHORNS.

Bred for eggs as well as fancy points. \$1 per sitting of 13. Honest dealing guaranteed. Address, H. N. DINSEN, 117 Barclay St., Perth Amboy, N. J.

LARGE WHITE ROCKS

(Hawkins-Knlp strain) and S. C. Brown Leghorns (Knlp-Dorsey). Heavy layers; farm raised. Ideal trap nests used. Eggs \$1.50 per 15; \$5.00 per 50. FRANK HARVEY, Box 7, Lansdowne, Md.

\$5 FOR AN INCUBATOR. It holds 50 eggs and is equal to any incubator made for hatching. Costs less because it's smaller. THE SOEGG BANTLING SPECIAL is guaranteed to result in you following instructions. 20th Century Poultry Book explains all. Sent for ten cents. Write for it at once. Reliable Inc. & Bldr. Co. Bx. B169 Quincy, Ill.

Scrubs Don't Pay

But my White Wyandottes do. Eggs from prolific layers. Strong, vigorous stock, at \$1 per setting. NATHAN WEST, Cobalt, Conn.

Buff Orpingtons,

Buff Plymouth Rocks, Black Minorcas—fine birds,—and very White Wyandottes. Young stock for sale and eggs in season, at moderate prices. Address, Mrs. A. P. ELLIOT, South Hadley, Mass.

NEVER PUT OFF

'till tomorrow, when you have this opportunity to purchase eggs from thoroughbred stock at \$2 per 15. Wh. Wyandottes, Wh. Plymouth Rocks. We have purchased Egg Harbor Farms entire stock of White Rocks. C. G. BAXTER & SON, Merchantville, N. J.

Brookside Poultry Farms

NELSON, PA., has fertile eggs. Each range only has ten to fifteen hens and cock separate. Nearly all varieties are located and cared for separately. Write for catalogue, all varieties, at once.

Mountain View Farms White Leghorns

have been bred for over ten years for heavy laying, by F. L. DuBOIS, on his farms at Loyd, N. Y.

Making Fancy Market Eggs a Specialty.

After using stock from Burpee, Knapp Bros. and C. H. Wyckoff, since '95, on my original stock, which were good White Leghorns, and with the results they are giving on my farms and with others, I am fully convinced of having as good a strain of S. C. White Leghorns, for eggs, size and vigor, as there exists today, as a test will convince you. Eggs for hatching \$1 for 15; \$3 for 50; by hundred \$5.

FIDELITY FOOD FOR YOUNG CHICKS

Used everywhere by practical poultrymen and specialist fanciers with untiring success. Insures perfect health and promotes rapid growth. Price, 25 lbs., \$1.25; 50 lbs., \$2.00; 100 lbs., \$3.50.

FIDELITY FOODS FOR FOWLS for setting birds into highest production condition for maximum egg production; for keeping fowls free from disease. Price same as F. F. for Y. C. The Famous Fidelity Foods are for sale by Poultry Supply Dealers throughout the world and by the Pine Island & B. Co., Sole Mfrs., Box D, Jamesburg, N. J.

SINGLE COMB WHITE LEGHORNS

1000 Laying Hens. Bred for Eggs.

Eggs from best matings (free range) \$1 per 15; \$4.100. W. M. VREELAND, Box F, Rocky Hill, N. J.

The Elusive Quality in Advertising.

It is all very well to say that advertising in order to be successful must have such and such qualities. There can be no doubt of it. There are certain principles which reason and experience dictate. The experience of others is always valuable, in spite of the oft repeated injunction of some of the advertising pedagogues: "Be original." It is not altogether a bad plan to follow the course of the student, who when asked what he would do if he were confronted with a given difficulty replied: "I would first try to find out what other great men have done under similar circumstances." But after all is said and done there is frequently something about a successful piece of advertising that escapes analysis under any of the rules laid down by the wise men. There is a subtle something about it often which does make it successful. It was said recently that it is the "human interest" with which an advertisement is invested which determines its success. It would not be strange if this were true in a great many cases, at least. It is not an easy matter to say just where one advertisement has the quality of human interest and another has not.

A knowledge of human nature, a useful sort of knowledge under any circumstances, is absolutely necessary to any real success in advertising. For what is advertising really but an attempt more or less successful to put in operation influences which will move men. There is surely such a thing as the "psychology of advertising." Any paper or magazine which carries a large amount of advertising furnishes evidence of the fact that the public must be appealed to on every side of its nature; to its reason, its sense of beauty, its fears, its self interest. The advertiser who best understands what people want, and who understands also how to attract attention to what he has for sale is the one who will achieve the largest success. Which is to say that he must understand human nature.

The man who understands human nature knows that it has many varieties. And the reason that the same advertisement will not appeal to all sorts of people is simply that people are of all sorts. An advertisement severely logical is not always the best, because the majority of people are not logical machines. Few men are influenced wholly by their reason, and many scarcely at all. The ad. that will sell a harrow to an intelligent farmer will hardly sell lotions for the complexion.—Agricultural Advertising.

How Much Will He Need?

Editor FARM-POULTRY:—If I can find a farm with all houses necessary to start already built and want 500 hens to start with, how much capital will I need to stock and live cheaply until I can get returns? E. L. W.

That's another of the impossible questions. I can't answer it definitely, but I'll try to give Mr. W. some points or ideas that will apply to such conditions.

To begin with, I assume that he has had no experience to speak of in poultry keeping, for if he had he would not be asking the above question. When a man with no experience starts with 500 hens I think that he will need something like \$3,000 to keep him and run his plant, with what income he succeeds in getting from the plant until he can make the plant pay expenses and his living, and he will probably have to nurse the \$3,000 carefully to make it last, and keep out of debt. The more hens the inexperienced man starts with the more money he will need to keep him going until the plant pays.

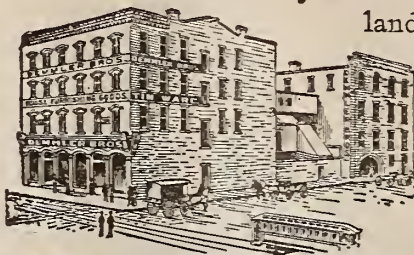
Inexperienced people have no business to start in poultry keeping for themselves except on a small scale, unless they are able to spend a good deal of money in learning the business, for there is one thing absolutely sure about it and that is that people don't make the business pay until they do understand it, and know how, and are able to do a day's work with poultry in a day.

No permanent success can be made unless the goods you sell are so good that they advertise themselves.—Printers' Ink.

Makecows pay use, Sharples Cream Separators. Book, "Business Dairying" and Cat. 249 free. W. Chester, Pa.

Roof Proof

That M F Roofing Tin is the best roofing material is demonstrated by roof proof in every city and town of the whole



land. Here is a business block familiar to every resident of Pittsburgh. It was covered with

M F Roofing Tin

more than fifty years ago, and has had no repairs. The roof is as sound as ever to-day and good for many years yet. Do you want a roof that will not leak; that is weatherproof and almost wearproof?

Ask your roofer about M F Roofing Tin

or write { W. C. CRONEMEYER, Agent,
Carnegie Building, Pittsburgh.

AMERICAN TIN PLATE COMPANY, New York.

Hazelbrook Poultry Yards,

GERMANTOWN, PHILA., PA.

WHITE and BUFF WYANDOTTES, WHITE and B. P. ROCKS, and imported BLACK MINORCAS. A choice lot of old and young stock for sale.

EGGS: \$2 per 13 (straight), except Buff Wyandottes, which are \$3 per 13.

Have 4 yards of this variety, extra fine in color, made up of Wooden, Riddell and Piser strains. No circulars. Write for wants.

RIPPLEY'S

Whitewashing, Spraying and Painting Machine.

GUARANTEED to be AS REPRESENTED

Read Our 30 Days Special Offer Below.

This Machine will Whitewash Buildings, Walls, Barns, Poultry Houses, doing it far better, saving 3/4 the time over the old method of using brush. Will Whitewash Buildings, or Spray Trees any height by using extra hose and extension rod to elevate Spray. Endorsed and used by hundreds of noted Breeders. It is used and endorsed by Sid Conger, Shelbyville, Ind.; C. R. Fishel, Hope, Ind.; Meadowbrook Poultry Farm, Dallas, Pa.; G. W. Brown, Camden, Ark.; A. G. Dunston, Marmora, Mass.; Texas State Fair Ass'n, Dallas, Texas. W. B. Deau, Secretary of State Board of Agriculture, Yankton, S. Dak., says: "We gave all State Fair Buildings two coats with your machine. It is a complete success and a great labor saver." In order to get them introduced in every locality, we will allow freight to your station, for the

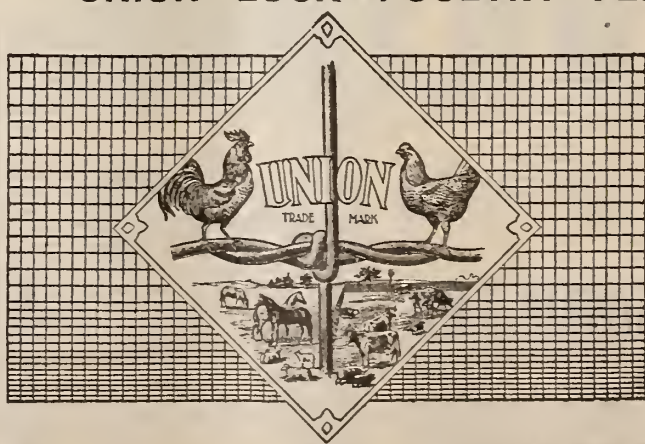
NEXT SIXTY DAYS ONLY,

at the following net cash prices: No. 6.—Eight Gallon Heavy Galvanized Steel, complete as shown in cut with 10 feet of 3/4 inch hose and one 8-foot bamboo extension rod and brass cylinder pump with agitator, \$12.00. No. 7.—Sixteen Gallon size, \$15.00. Terms cash with order, or we will ship C. O. D., if \$3.00 accompanies order. Take advantage of our Special Offer.

Breeders' Supply and Sprayer Catalogue mailed free.

Ripley Hardware Co., Box 12, Grafton, Ills.
Western Office, Box 12, Watertown, So. Dak.

UNION - LOCK - POULTRY - FENCE.



Will not sag or slack as poultry netting does. It is the neatest, most durable and most economical fence on the market. It will fit any unevenness of the ground without cutting. The best chick and poultry fence manufactured. Send for our special circular and prices.

'TIS THE 'UP-TO-DATE' FENCE.

JOSEPH BRECK & SONS, Sole New England Agents, 47 to 54 No. Market St., Boston, Mass.



